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The Septem Septem Skeptic



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Hits and Misses

Steve Donnelly

All is not as it seems

This summer seems to have been the season of frauds, fakes and hoaxes—and I'm not just thinking of crop-circles (see page 6). For instance, readers of *The Skeptic* will no doubt be surprised and horrified to learn that Tarot card readers working for a dial-a-Tarot phone service are not always fully qualified. An exclusive article in the *Manchester Evening News* on 5 September revealed that reporter Janine Watson was able to obtain a job as a card reader with Destiny Line with no previous experience of Tarot and after only a brief telephone interview. Other readers working alongside her included 'students, a musician and (shock! horror!) a former double-glazing salesman'.



And it's not just in telephone consultations that one is liable to encounter a pseudo-psychic. Lynn Picknett, writing in *Bella* on 13 July, reported on a medium who for ten years has been 'cheating the desperate and the bereaved'. The medium, referred to as Terri in the article, obtained information on recent deaths from her local paper and combined this knowledge with standard cold-reading techniques to give her readings: 'I soon found it was easy to fool someone face to face. You can study their body language. If you make a stab at something and they lean forward, you're on to a winner. Mostly I knew my audience and had lots of facts about their loved ones at my fingertips'. Ms Picknett, who according to the dust jacket of one of her books is 'a leading authority on the paranormal', did not proffer any advice on how the naive punter can distinguish a fake medium from a real one.

Meanwhile (what is the world coming to?) in Paris, Syrian father-of-four, Bassam Assaf (who received an honourable mention in *Hits & Misses* in issue 2.5) recently confessed that, in reality, he was not in regular contact with the Virgin Mary and that the sacred oil which flowed from his hands was actually olive oil from a wad of cotton wool

hidden up his sleeve. Assaf had managed to persuade his multi-millionaire boss, Michel Merhej that the Mother of God had chosen him to pass on business tips to him. According to the *Daily Mail* on 17 August, these tips were invariably accompanied by a suggestion that Assaf be handsomely rewarded for his rôle as middle-man (with large sums of cash, property and an expensive sports car). After three years of using the Blessed Virgin as a consultant, Merhej found that his business was sliding into bankruptcy and asked the police to investigate. At this point, Assaf whose fame had spread across France, confessed that it was all a sad case of fraud and now faces up to three years in gaol.

Sir Cyril restored?

Staying with the subject of fraud but on a slightly more positive note, a recently published book attempts to resurrect the former good reputation of Sir Cyril Burt who, since the publication of an article in a Sunday newspaper in 1976, is widely regarded as having committed scientific fraud in his nature versus nurture studies on twins. In the Cyril Burt Scandal, reviewed in the Guardian on 9 July, Ronald Fletcher re-examines the evidence against Burt and concludes that Burt was innocent of fraud and that he was subjected to a 'deliberate and sustained process of vilification'. The Burt Affair by Robert B. Joynson which was published in 1989 (and reviewed in The Skeptic 3.4) also concluded that the evidence against Burt was much less clear-cut than popularly believed. Perhaps, as Clare Burstall, the author of the Guardian review suggests, it is time for a thorough and impartial public re-examination of the evidence against Burt.

FT 19

The discovery of aeroplane wreckage a few miles off the Florida coast earlier in the year seemed to hold out the promise of finally solving the mystery of the loss of flight FT 19 in December 1945. The disappearance of this flight, which consisted of five planes flown by an instructor and four trainee pilots, was one of the cornerstones of the Bermuda triangle legend. A number of newspapers, including the Guardian on 18 May, reported that a salvage company, which was surveying the Florida coastline for sunken Spanish galleons, had discovered the wreckage of several planes under 750 feet of water. One of the sunken planes bore the number 28, which was the number of the lead plane in Flight 19, whilst the letters FT (for Fort Lauderdale) were visible on a number of aircraft. However, the Bermuda triangle continues to be as mysterious as ever—the Guardian a few weeks later on 5 June reported that a more detailed look at the wreckage had shown that the planes were of an older type than those in FT 19 and that the

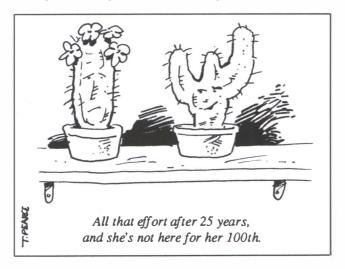
number 28 had disappeared. For a detailed analysis of flight 19 and other components of the Bermuda Triangle nonmystery, the book (now, I believe, sadly out of print) *The Bermuda Triangle Mystery—Solved*, by Lawrence David Kusche is highly recommended.

FT 58

'Hamster Eats a Car', 'Farmer's Fury as Frogs Kill Lambs' and 'Three Killed in Chicken Sexing Dispute' are all newspaper headlines featured in the latest issue of the magazine Fortean Times (No 58) which went on general sale in newsagents at the end of July. This distinctly odd, but fascinating publication was established in 1973 and was produced as an (approximately) quarterly magazine by editors Bob Rickard and Paul Sieveking in much the same way as The Skeptic until they recently secured a publication agreement with John Brown, the publisher of Viz magazine. Fortean Times is named after Charles Fort, an American philosopher who was unhappy with the way in which scientists dismissed phenomena which they could not explain. He devoted his life to the collection and cataloguing of such phenomena and FT continues in this tradition. John Brown hopes that the circulation, initially 20 000, will in the near future increase to around 50 000.

Cosmic Cactus

The paranormal, by its very nature, manifests itself in mysterious ways-none more so than an event reported in the Surrey Mirror on 25 July which will undoubtedly find its way into the Fortean Times clipping library. Grandmother Else Yockney of Reigate was intrigued to find that a cactus which had remained lifeless in a pot for nearly 25 years flowered for the first time on what would have been her late mother's 100th birthday—and the cactus had belonged to her mother: 'Since my mother gave it to me 24 years ago, it has been in the corner of my conservatory and seemed lifeless. Suddenly, on Monday it burst into flower. There were two prominent mauve flowers which only lasted the day. My mother would have been 100 on Monday.' With the name of God appearing mysteriously in aubergines in Bradford and psychically flowering cacti in Reigate I urge readers all over the country to watch out for further cosmic messages in their plants, fruits and vegetables.



Psychic demonstration

James Randi's 'Psychic Investigator' series which was screened in July and August (see review by Dave Love elsewhere in this issue) certainly increased public interest in the paranormal—although it is difficult to determine whether it won any converts to skepticism. However, it has been fairly consistently slammed by the psychics as misrepresenting their talents and abilities (even though all participants had agreed to the protocols beforehand). One possible interesting consequence of this criticism was reported in the Birmingham Metro News on 26 July when psychic Maurice Dunbar announced that he was forming a national defence committee in the face of Randi's determined attempt to discredit his profession. Dunbar, who gives palm and Tarot readings, says that he wishes to 'silence the skeptics for good'. The article reported that he was intending to organize 'the most comprehensive demonstration of psychic powers ever staged', sometime in August but The Skeptic has heard no word of the demonstration yet having taken place. Dunbar claims that 'Randi has a closed mind—he doesn't want to believe. I want an independent body to set up tests in a genuine controlled environment. I am advertising nationally for psychics to come forward. I want half a dozen of the country's most able people to take part'.

Elixir of youth?

A cream which could one day go on sale in Britain purports to 'dispel the ravages of time and restore the blush of youth' according to a lengthy article in the Sunday Times magazine on 7 July. The cream, which has the fairly unprepossessing title 'Retin-A', was developed by Professor Albert Kligman as a cure for acne and can only be legally marketed for that purpose. However, of the 5 million tubes of the cream which were marketed in the US last year, almost half are estimated to have been used, not by pimply adolescents, but by mature women keen to remove their wrinkles, laughter lines and crows' feet. Kligman began the research which led to the development of the cream 30 years ago when he was studying the retinoids—a group of synthetic compounds which are similar to retinol (otherwise known as vitamin A). He observed that the retinoid known as retinoic acid (and later patented as Retin-A) caused the skin to become itchy, peel and flake and stimulated the growth of a fresh layer of skin to a large extent free of acne, wrinkles and other skin defects. Kligman acknowledges that the skin ageing process itself is irreversible but defines 'photo-ageing' as the damage caused to the skin by sunlight including wrinkles, freckles and coarse and slack skin. It is this type of damage that he claims Retin-A can repair. Although the cream has been prescribed in the UK since 1972 as an anti-acne cream by Cliag, a subsidiary of Johnson and Johnson, it is unlikely that the Department of Health will sanction it for general use in the near future. Perhaps this is just as well as confusion between 'Regrow' antibaldness cream, Retin-A, antiplaque toothpaste and Germaloids could have disastrous consequences in bathrooms all over the UK.

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

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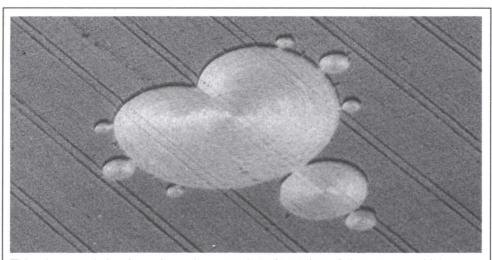
Ever-Increasing Circles

No-one in Britain can have missed the controversy stirred up in the crop fields of southern England when jovial sexagenarians Doug Bower and Dave Chorley confessed in *Today* newspaper on 9 September that they had been producing crop circles (by non-paranormal means) for 13 years. Circle expert Pat Delgado inspected a circle formation made by Doug and Dave for *Today* and declared it genuine: 'In no way could this be a hoax. This is without doubt the most wonderful moment of my research'. When the fairly unmysterious origins of the formation was revealed to him Delgado was quoted as saying: 'I was taken for a ride. It's a great con and a great dirty trick. I accept that fact'. However, by the time that *Today* went to press the following day both Delgado and co-expert Colin Andrews were refusing to admit that they had been had—

although they did not manage to explain the reasons for Delgado's rather significant cock-up the previous day.

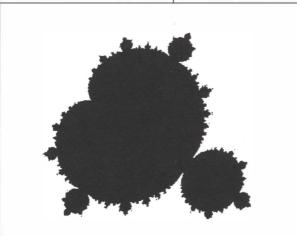
It should be pointed out, by the way, that Doug and Dave are not claiming responsibility for all the crop circles in the last 13 years—only the significant ones which the self-styled experts had pronounced to be genuine.

But crop circle enthusists should not despair—the story has not yet ended and no doubt pictograms of ever-increasing complexity will re-appear in the silly season next year.



This photograph is of our favourite crop circle formation of the season which was photographed by *Cambridge News* photographer Dave Parfitt and published in the

newspaper on 15 August. The pilot who originally spotted the circles, Steve Cherry-Downes, said that: 'In 25 years of flying I have never seen anything like them. They are obviously not man-made—they are far too symmetrical for that.' However, mathematicians and computer graphics enthusiasts quickly recognised the formation as a fairly good approximation to the well-known Mandelbrot set which can be produced on many home computers by repetition of a simple calculation.



The Mandelbrot set as generated by a computer.

Physicist and roving *Skeptic* reporter Anthony Garrett made a major corn circle discovery when conducting circles research at an undisclosed location in the south of England (believed not to be far from Warminster). For the last three years Garrett has been looking for a clear manifestation of



a horizontal plasma vortex and finally has found the amazing circle formations illustrated above. The photograph was taken near to a hill with a horizontal component to its slope and provides possibly the strongest support yet for the plasma vortex theory of circle formation. We predict that, by the end of next summer, formations similar to these will be seen all over England.

Psychics and Semantics

Mike Rutter

Why skeptics should not play games with words

Lewis Jones raises the important question 'Why not to test a psychic' (*The Skeptic*, 5.3 & 5.4) and comes to the conclusion that, if psychics' claims are patently absurd, they do not merit serious skeptical investigation. Well and good—and I would agree with Antony Flew (*The Skeptic*, 5.4) that, in the absence of a 'respectable demonstration' of such claims, we are entitled to ignore them; until, that is, such time (if ever) as the psychics put forward some good evidence—and the burden of proof must fall on their shoulders alone.

Naturally I hold no brief for the Cheese Moon theory, the Cottingley Fairies, or Santa Claus, to name but a few, and I am quite prepared to agree (on empirical grounds) that most—perhaps all—'paranormal phenomena' are without foundation, at least at present.

However, I am perturbed by the apparent suggestion that we skeptics can rule certain claims out of court purely on semantic or theoretical grounds, that is, without having to consider any evidence that might conceivably be put forward in the future. This seems a step in the direction of dogmatism—'Rottweiler Rationalism' indeed—which will tend to alienate uncommitted readers.

CSICOP and skeptics generally aim to test claims of the paranormal impartially, on the merits of the evidence put foward in each case. I agree that in some cases the evidence is lacking or so weak that we have no obligation to investigate it further, but this should not involve appeals to logic and semantics, which are often unjustifiable.

Consider, for instance, how Mr Jones' accusation of 'circular reasoning' might be used to 'discredit' standard scientific ideas:

- Q: 'Why does the apple fall?'
- A: 'Because the Earth's gravitational field pulls it down.'
- Q: 'All right then, what is a gravitational field anyway?'
- A: 'Well, it's something that pulls things to the Earth.' (Collapse of stout—and circular—scientist!)

In fact, of course, scientists from Galileo onward have concentrated, not on what the field *is* (ideas on this have varied enormously, and we now have a choice between curved space-time, gravitons, twistors, and so on), but on how it *works* (e.g., mathematically), and of course on whether the concept gives reasonably accurate predictions in practice. The latter is the empirical test which paranormal theories usually seem to fail.

Again, Mr Jones says 'extra-sensory perception is really extra-perceptual perception' (with the implication that it is therefore condemned by the form of words used). In fact, however, most parapsychologists would presumably agree



that (if ESP exists, which is of course another, and entirely empirical, question), it means something like 'perception out of the normally recognised sensory channels', perhaps, as the Theosophists suppose, by 'astral sense organs' or whatever. However barmy the latter idea may sound, the real question is whether there is any evidence in their favour—which is empirical matter, and not one of word-play alone.

Another old chestnut is the idea that 'backwards causation in time' is obviously false, so you needn't even examine the idea in practice; yet several recently proposed theories in quantum mechanics and cosmology have made use of 'advanced potentials' or whatever—even if these are treated entirely as part of the formalism of the theory, or apply at the microscopic level only. Again, the existence of (for example) tachyons, which would seem to travel backward in time relative to certain observers' frames of reference, while not yet empirically demonstrated, is still treated as a reasonable theoretical possibility. In fact, I get the impression that, if scientists ever needed this concept, Mr Jones would shelve his objections at once, on the grounds that it would now be entirely reasonable!

Actually, many discussions of precognition imply that the future, once known, can be changed (warning dreams, premonitions, and so on), which suggests the odd idea that the precognition is caused by an event which never takes place! But most theoretical approaches involve the idea of alternative futures, perhaps in the form of pre-existing 'tracks' down which the 'train of life' may be steered (the analogy is

often drawn, no doubt misguidedly, with the 'many worlds' interpretation of quantum mechanics).

On this supposition, precognition would imply, not backward causation at all, but merely a glimpse of such 'tracks' which currently exist, and continue to exist even though in the outcome a different one is actually chosen. Again, I am not arguing for such a theory, which is probably quite erroneous (and the evidence is hardly compelling), but my point is that such a concept cannot simply be ruled out *a priori*, on logical grounds alone.

Another appalling idea is to ditch everything not found in a (current?) English dictionary. In fact, the dictionary simply reflects current usage; dictionaries from earlier times will have had entries for God, the soul, and so on, and who knows what next century's will contain?

Imagine someone criticising relativity or quantum mechanics on similar lines when these theories were first put forward: 'Oh dear, they're "illogical" (for example, quantum jumps, indeterminacy, collapse of wave function), self-contradictory (for example, relativity of simultaneity and length, which went against established ideas of space and time; wave-particle duality and tunnelling effect in radioactive decay, which contradicted simultaneous position and momentum of particles), they're not even in the dictionary, so they must be false.'

Fortunately scientists found (empirically!) that these ideas were true (or at any rate more adequate in practice), and then went on to amend the dictionary accordingly! Clearly, this would also happen *if* (a big 'if', I agree) any evidence were found for the paranormal.

The question 'Does this theory make sense?' refers to the accepted ideology at the time (you can say 'paradigm' if that sounds more scientific!), and if the theory in question goes beyond the limits of that paradigm, it will inevitably fail to make sense in terms of those limits—regardless of whether it is itself true or false! Skepticism should rest firmly on an empirical base, not on the sort of semantic 'sleight of tongue' which Mr Jones (quite rightly) deplores in the psychics.

Mike Rutter is a systems analyst based in Manchester.

The London Student Skeptics Autumn Term Meetings for 1991

All meetings will be held in Room 3C of the University of London Union building on Malet Street, unless otherwise stated, at 7.30 pm for 8.

21 October: Wine and Cheese Evening.

4 November: Alan Wesencraft, librarian in charge of the Harry Price Collection, on 'Harry Price and his Library'.

18 November: Mike Howgate on 'Looking for a witness to The Flood'

2 December: Brian Austin of our local Creationist bookshop on 'A Christian Freethinker (?) looks at the New Age'.

16 December: Video show of an episode from the *James Randi: Psychic Investigator* series, followed by discussion and our Yuletide Party.

Contact Mike Howgate, The London Student Skeptics, Malet Street, London WC1E 7HY, or telephone 081 882 2606.

Loco in Lowestoft

Jean Dorricott

'God has given us grey matter—use it!' The attentive audience, over 100 strong, smiled appreciatively and turned the next page of their bibles. 'God told Eve that since she'd been so disobedient, the pain of all women in childbirth would be increased and they must always be in subjection to men.' The speaker leered round at the women in front of him while they nodded their heads in agreement. 'Now I'm a scientist myself, but a practical person as well, and I use my God-given mind. I know there's controversy about evolution but we must uphold the truth of our Lord, so I agreed to come and lead our investigation into how the world was made. First of all, let's turn to God's Word, because He should know how it happened, shouldn't He, since He's the one who created the universe?' Again the audience nodded, more seriously this time. They were members of a thriving independent church in Lowestoft, holding a 'Creation or Evolution' evening in the public library in the spring. Among them were quite a few schoolchildren.

The speaker continued with quotations and explanations straight from the American Infant Science Series for Fundamentalists—writings by Morris, Whitcombe, Gish *et al.* In spite of being an abject female and a scientist of variable quality, I was not deterred from raising some questions at the end about the possibility of other interpretations of Genesis. My husband and I were the only dissenters present, and I don't think we made any impression on this kindly, socially caring, but scientifically illiterate group.

Is there any value in attending such meetings, excruciatingly dull as they are? Probably, in a small place like this, attending can be worthwhile occasionally. Our discussions may have been futile, but we gained useful information. Firstly, my husband recognised the speaker as a senior social worker with whom he had had occasional dealings. He has since alerted our educational welfare officers to the strong fundamentalist leanings of this man, having in mind recent ritual abuse cases. Secondly, I know that one of the senior Elders of the church is also head of communications in a local high school. As he wasn't at the meeting I contacted him and enquired why his church was undermining the work of his colleagues in the science department. I then provided him with a New Scientist article ('Genesis goes on trial', 11 December, 1986), details about some of the abuses of creationism and a copy of R.J. Berry's God and Evolution (Berry is a bible Christian who supports evolutionary theory). I also directed him to Science and Christian Belief, a journal from the UCCF stable. It has some helpful ideas though the present issue has an article by D.J. Wiseman on 'Creation Time', comparing the Genesis text with other Near East texts. The author proposes that the 6 days could well refer to days of revelation rather than creation activity. I can't myself visualise God sitting in Eden for 6 days explaining things to Adam, but a fundamentalist might accept this notion.

Something To Shout About: The Documentation of a Miracle?

Dr Peter May

An investigation into the healing of Mrs Jean Neil

In the wake of my contribution to a debate book Signs, Wonders and Healing (Inter-Varsity Press) which some considered to be unduly sceptical, I invited readers of the Southampton Evangelical Alliance Quarterly Bulletin to submit claims to miraculous healing to me for investigation and comment upon. By far the most striking of the few responses received was a video recording of what was presented as the miraculous healing of Mrs Jean Neil at a meeting led by a German evangelist, Mr Reinhard Bonnke.

The video, which is entitled Something to Shout About—The Documentation of a Miracle, is being marketed internationally. It shows Mrs Neil attending the meeting in a wheel-chair. Mr Bonnke laid his hands on her after which she stood and to the astonishment of the assembled crowd, ran round the auditorium and appeared completely healed of what she described as a spinal injury. The video went on to show a written report from an orthopaedic surgeon, and an interview with her GP, Dr Colin West who is quoted on the video cover saying 'Life is stranger than fiction'. Mr Bonnke concludes the video by claiming her healing is 'an outright miracle'.

The Claim

'Mrs Jean Neil of Rugby, England was a truly hopeless case—spinal injury, angina pectoris, a hip out of joint and one leg two inches shorter than the other. She underwent 14 operations, spent 4 years in hospital, suffered 3 heart attacks, and was treated with traction and plaster jackets. Mrs Neil was confined to a wheelchair, used three respirators, applied heart patches and took 24 tablets daily. This was her situation throughout the course of 25 long years—until the 12th of March, 1988. Now she has a brand new story!'-Video cover (CfaN Productions.)

Method

Mrs Neil's address appears on a letter on the video, enabling her telephone number to be obtained. She was found to be entirely co-operative and forwarded copies of a number of medical letters and reports in her possession as well as numerous newspaper cuttings and a second video of a Central TV feature presented by Michelle Guinness. She also wrote to her doctor asking him to co-operate with my enquiry and release whatever information I should request. From the information she sent, a list of questions was compiled and sent to her GP. A further lengthy telephone interview was then conducted with Mrs Neil.

Findings

Mrs Neil could not have been more helpful or enthusiastic about what had happened to her. As implied by her two GPs, who both featured on video, her recovery had evidently been sudden, complete and lasting. Eighteen months after her healing she appears to be in entirely good health and very active. She has recently travelled in Europe and Africa telling her story at meetings led by Mr Reinhard Bonnke. There would appear to be no immediately satisfying medical explanation as to what had happened to her. Her prayers have been answered in a remarkable way.

The fact that she is now well raises questions about the nature of the illnesses from which she had been suffering



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and of the 'miracle' which is said to have occurred.

Her problem is presented as having been predominantly a spinal injury originating in 1964 with a fracture to her coccyx (the little bones at the very base of the spine). However she also suffered from a number of other conditions and claims to have been healed of seven diseases: a short leg, an out of joint hip, a spinal injury, heart disease, a hiatus hernia, bronchitis and poor vision.

1) Short Leg: The orthopaedic report from Mr Eisenstein at Oswestry Hospital makes no reference to differences in her leg length. Legs are notoriously difficult to measure and it would probably require X-ray measurement to be sure of a

discrepancy. There is no mention of such X-rays nor suggestion of a significant clinical problem with her legs in the reports I have been able to see.

- 2) Hip out of Joint: Mr Eisenstein reports that an Xray taken on 23rd December 1987 (i.e. 3 months before her healing) showed that her hips appeared 'quite normal'.
- 3) Spinal Injury: Of the 14 operations, 4 were on her spine. The other operations included 2 Caesarean sections, an appendicectomy, an operation for hammer toe and about 4 procedures on her elbows. She could not recall the others. The four years spent in hospital was an estimate of the total of all these procedures plus a number of medical admissions. Apparently she had ten admissions in about a year for chest infections and the appendicectomy had been complicated by peri-

The spinal operations included removal of her coccyx in the 1960s, removal of a

prolapsed disc in 1973, a laminectomy in 1975, and a further disc removal in 1981. On the last two occasions adhesions were divided and nerve roots were wrapped in silastic. Since that time it seems that she walked with a stick until January 1987 when she again developed low-back pain which persisted until her healing 15 months later in March 1988.

It was mainly during that 15 month period that she made use of a wheelchair. According to her GP's referral letter to the orthopaedic surgeon, dated 23rd September 1987, 'She remains in some pain, has to use two walking sticks to get around, or a wheelchair for longer distances.' In December 87, Mr Eisenstein's report stated, 'Patient is ambulant on walking sticks approx. 20 yards and very slowly, otherwise uses wheelchair at home and for shopping'. It does not appear that she was at any stage confined to a wheelchair.

Of the '24 tablets' required daily, some of these were pain killers, two taken every six hours, i.e. eight a day. They included at times sleeping tablets, drugs for angina and anti-depressants. They were not 24 different medications.

The orthopaedic report of December 1987 itemises her drug regime as follows, naming only two different tablets:

Acupan 2 tablets 4 times daily (pain killer), Angina-on treatment (probably skin patch/mouth spray), Propranolol 1 twice daily (presumably for angina), Inhalers-for occasional bronchitis (i.e. asthma).

In September 1988, six months after her healing, she was reassessed by the orthopaedic surgeon. Two paragraphs

of his three paragraph report

repeated today and these confirm that there is absolutely no change from the X-rays taken prior to this evangelical healing.'

Clearly she had improved dramatically subjectively, but there was no objective evidence of any change in the condition of her spine.'

4) Heart Disease: Mrs Neil believes she has had three heart attacks—leaving her subsequently with angina. She describes having been on a number of anti-anginal therapies all of which were subsequently discontinued. Writing six months before her healing her GP stated that her chest pains 'after vigorous in-

vestigations were felt not to be cardiac in origin.'

were shown on the video. The first paragraph was read aloud by the presenter and reported that 'she has a full range of completely painless spinal movement'. The third paragraph, which was not shown, reads: 'X-rays have been

- 5) Hiatus Hernia: Mrs Neil reports that about eight years ago she had an X-ray which showed her to have an hiatus hernia. This has not been repeated since. Acid reflux from her stomach into her gullet from such a hernia could well cause chest pain similar to angina. It may well have been aggravated by anti-inflammatory painkillers for her back. Anyway, it appears not to be troubling her at the moment.
- 6) Bronchitis: It seems as though no-one has ever used the term 'asthma' to describe this problem to her, but the use of 'respirators' implies as much. She told me that when her chest was really bad 'and required ten admissions in a year' she was taking Propranolol for her 'angina'. A common side effect of this drug is bronchospasm (i.e. asthma). It would seem probable from the information available that

WHAT IS A MIRACLE?

People use the term in a variety of different ways. Everyday events such as childbirth are popularly called miracles and Christians commonly describe any dramatic answer to their prayers as miraculous. I prefer to use the word in a narrow sense in order to highlight the extraordinary character or the events attributed to Christ in the Gospels. They were immediate (or almost), complete and lasting. Many were physical illnesses that remain incurable today (such as kypho-scoliosis, the 'withered' hand congenital blindness). We are told they involved every kind of illness including the raising of the dead. In those miracles, the very nature of things was instantaneously changed. Water was changed into wine.

It is the sort of miracle, where there is a change in the very nature of things, that I have looked for for twenty years - without success. That does not mean that God does not exist, or that he does not answer our prayers. If he does exist, it seems to imply that when he answers our prayers he normally respects the integrity of the created order he has set in being. He is not changing dogs into cats! That is not to say that he cannot heal secondary cancer, Down's syndrome or a club foot, but it is to say that such a change in the very nature of things is not his normal way of working, and if I have not been able through wide enquiries over a long period to find one such example that withstands scrutiny, such healings must anyway be very rare indeed.

the treatment given for suspected angina (which she didn't actually have) caused her 'bronchitis' which settled when the treatment was withdrawn.

7) Poor Vision: Apparently her vision deteriorated seriously while she was taking another anti-anginal drug, Nifedipine. If this is true, it is a highly unusual side-effect and is not listed a potential problem on the drug's Data Sheet. It appears that her vision subsequently improved dramatically after she discontinued the drug, but she does continue to need spectacles.

Discussion

In the light of this information, the claims made on the video—and not least in the paragraph quoted above from the video cover—seem to be seriously incorrect and misleading. To clarify the situation and gain fuller information, I compiled my list of 18 questions which I sent to her doctor, Colin West. He replied:

'I have given the matter considerable thought. Whilst I have some sympathy with your aims, I cannot convince myself that to answer your questions would be in the best interests of my patient at this time. I regret that this may appear unhelpful and seem as though I am dodging the issue.'

The case of Mrs Neil illustrates many of the problems that are uncovered in the search for truth in claims of miraculous healing. On the one hand it is difficult to deny the amazing improvement in her sense of well-being and enjoyment of life. Clearly she is only too aware of how much better she feels but is not in a good position either to understand the pathological details of her condition or the nature of her healing. Neither is she likely to be conversant with the difficulties involved in trying to define a miracle. Like the blind man of John's gospel, the one thing she knows is that once she was disabled, now she is not. Given the complexity of her symptoms, the nature of her disability was not easy to evaluate even by experienced medical observers. This is nearly always the case with back pain in particular. Most medical practitioners usually refrain from using precise diagnostic labels in these conditions.

In Mrs Neil's case, the uncertainties surrounding her back pain were compounded by other conditions of which no less than four (nos. 4–7) may have been wholly or in part 'iatrogenic', i.e. caused by treatment.

Both video interviews with her general practitioners are striking for the non-committal guardedness of the doctors' answers. For various reasons, they were being very careful as to what they said. The last thing they would have wanted would been to upset Mrs Neil's new-found health.

The other major complication has been the interpretation of her medical condition by non-medical personnel who were interested in making and marketing the video tape. Some of their statements may well have resulted from innocent confusion or unwary enthusiasm. Certainly their zeal exceeded their wisdom and they did not adequately check the details of her story.

However, more ominously, the video cover allows the reader to conclude that the 4 years in hospital and 14 operations were due to an inter-related disease process (e.g. 'she

was a hopeless case'.) Furthermore, they knew from the report that they videoed that no change had occurred in her X-rays. To state that she was confined to a wheelchair 'throughout the course of 25 years' is difficult to excuse.

A further complication is the refusal of her doctor to answer the many questions that her case raises. His decision here must be respected for it may well not be in his patient's best interests to be as open with her details as she had requested. For instance, to what extent did depression play a part in her illness? Dr Sharman concluded significantly on the Central Television interview that 'the most striking thing is in her mental state.' 'She was miserable and introverted. Now she is happy and outgoing.'

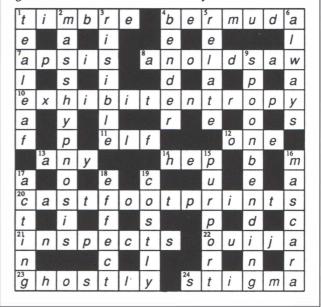
It should be a matter of concern to consider how her healing is perceived by other sick people, not least the many invalids with organic disease who were present at the healing meeting. The video for instance showed deaf people who were watching sign language. Others less obviously may have attended because they were suffering from secondary cancer. They must be very confused as to why God healed something that seemed as physical as an injured spine but did not heal their physical disease. Some must be wondering why it is always like that! Is it something in the nature of God that causes him to be concerned about short legs and back pains while seeming to ignore the blind, the deaf, the paralysed and the dead. Did they not have enough faith? And why do the gospels record Jesus healing exactly such conditions as those which never seem to be healed today?

A copy of this report was sent to Mr Bonnke with a request to withdraw the video.

Dr Peter May is a GP in Southampton and a member of the General Synod of the Church of England.

Crossword solution

Congratulations to Mrs A.C. Watson of Ruthin, who is the winner of last issue's crossword competition. We shall be teleporting a £10 book token to her immediately.



Smith and Blackburn: Hornswogglers Extraordinaire

Martin Gardner

The Story of a Great Hoax

One of the most difficult notions for psychic investigators to get through their heads is that the deceptions of magicians rest on peculiar principles that must be thoroughly understood if one intends to investigate psychic miracles. As all conjurors know, intelligent persons are extremely easy to deceive; if they are trained in science they are even less likely to penetrate the deceptions of skilled mountebanks. Electrons and microbes don't cheat. Psychic miracle workers do. Over and over again in the history of psychic research, scientists have assumed that they were capable of detecting fraud without troubling to learn even the simplest of magic techniques. As a result, they have repeatedly played the roles of gullible fools.

This is as true today as in the past. Ted Serios, for example, the Chicago bellhop who claimed he could project photographs from his mind onto Polaroid film, completely convinced two psychiatrists, Jule Eisenbud and Ian Stevenson, that his feats were genuine. Joseph Gaither Pratt, John Beloff and many other eminent parapsychologists were similarly taken in. To this day Eisenbud, Stevenson and Beloff have been unable to accept the exposure of Ted's methods that was published in *Popular Photography* (October 1967). On the contrary, Eisenbud recently issued a new edition of his book about Serios. He has accused the magicians responsible for exposing Ted of setting psychic research back fifty years by causing Ted to lose his powers!

Nina Kulagina, in Russia, using magnets and invisible thread in ways familiar to magicians, made dupes of scores of psychic investigators. Charles Honorton still refuses to

believe that his friend Felicia Parise used invisible thread to move a plastic bottle across her kitchen counter. Dozens of parapsychologists around the world were for a time convinced that Uri Geller was able to bend spoons and keys by psychokinesis. Science writer Charles Panati, totally ignorant of magic, edited *The Geller Papers*—a collection of embarrassing articles defending Uri's psychic powers.

During the heyday of Spiritualism, thousands of mediums around the world were levitating tables, floating luminous trumpets, exuding ectoplasm through their mouth and nose, and producing unearthly music, strange odours and photographs of the dead. Some of the best minds in science and literature—physicist Oliver

Lodge and writer Conan Doyle, to mention two—accepted all these wonders without taking the time to learn even the most rudimentary elements of deception. Hundreds of other examples could be cited of intelligent investigators who were hornswoggled by the simplest of conjuring tricks. Let me focus on one outstanding example from the nineteenth century that is not as well known as it should be.

The story begins in 1882 when journalist Douglas Blackburn, editor of a weekly journal in the seaside resort of Brighton, became a friend of G A Smith. Smith, age 19, was then performing a stage act as a hypnotist. The two young men decided to team up and develop a mind-reading act in which Blackburn would send messages telepathically to Smith.

To publicize their act, Blackburn wrote a letter to *Light*, a Spiritualist magazine which published it in their August 26, 1882 issue. Here is how Blackburn described what they did:

'The way Mr Smith conducts his experiment is this: He places himself *en rapport* with myself by taking my hands: and a strong concentration of will and mental vision of my part has enabled him to read my thoughts with an accuracy that approaches the miraculous. Not only can he, with slight hesitation, read numbers, words and even whole sentences which I alone have seen, but the sympathy between us has developed to such a degree that he rarely fails to experience the taste of any liquid or solid I choose to imagine. He has named, described, or discovered small articles he has never seen when they have been concealed by me in the most



Medium Jack Webber in action, circa 1939

Mary Evans/Psychic News



Edmund Gurney

unusual places, and on two occasions, he has successfully described portions of a scene which I either imagined or actually saw.'

The letter caught the eye of Edmund Gurney (1847–1888), one of the distinguished founders in 1882 of England's Society for Psychical Research (SPR). Gurney later wrote numerous books on psychic phenomena, of which his two-volume *Phantasms of the Living* (1886) was the most notable. Written with the help of friends Frederic Myers and Frank Podmore, it became the classic account of persons who claim to see spirit forms of friends and relatives shortly after they die. Myers (1843-1901)—he coined the word 'telepathy'—was another founder and active member of the SPR. His two volume *Human Personality and Its Survival of Bodily Death* (posthumously issued in 1903) was his magnum opus.

Smith and Blackburn joined the SPR, and Smith even became Gurney's private secretary and research assistant, a post he held until Gurney died. Smith brought to London from Brighton a number of young men who demonstrated telepathy after Smith hypnotized them. These experiments were supervised and reported in the SPR's journal by Mrs Henry Sidgwick, wife of the Cambridge philosopher who had been the SPR's first president.

Not until after Myers, Gurney and Podmore died did Blackburn publish three remarkable articles in which he explained how he and Smith secretly signaled to each other. His 'Confessions of a Famous Medium' in John Bull, a popular magazine (December 8, 1908), was followed by a more detailed 'Confessions of a Telepathist' in London's Daily News (September 1, 1911). This article should be carefully read and pondered by every person who wishes to investigate psychic wonders, or to evaluate reports of such investigation by others. Here is the article in full:

'For nearly 30 years the telepathic experiments conducted by Mr G A Smith and myself have been accepted and cited as the basic evidences of the truth of Thought Transference.

Your correspondent 'Inquirer' is one of the many who have pointed to them as a conclusive reply to modern skeptics. The weight attached to those experiments was given by their publication in the first volume of the proceed-

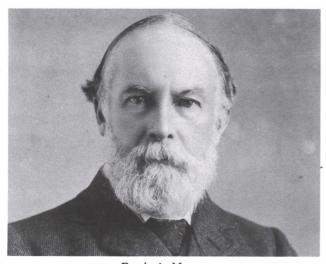
ings of the Society for Psychical Research, vouched for by Messrs F W H Myers, Edmund Gurney, Frank Podmore, and later and inferentially by Professor Henry Sidgwick, Professor Romanes, and others of equal intellectual eminence. They were the first scientifically conducted and attested experiments in Thought Transference, and later were imitated and reproduced by 'sensitives' all the world over.

I am the sole survivor of that group of experimentalists, and as no harm can be done to anyone, but possible good to the cause of truth, I, with mingled feelings of regret and satisfaction, now declare that the whole of those alleged experiments were bogus, and originated in the honest desire of two youths to show how easily men of scientific mind and training could be deceived when seeking for evidence in support of a theory they were wishful to establish.

And here let me say that I make this avowal in no boastful spirit. Within three months of our acquaintance with the leading members of the Society for Psychical Research, Mr Smith and myself heartily regretted that these personally charming and scientifically distinguished men should have been victimized, but it was too late to recant. We did the next best thing. We stood aside and watched with amazement the astounding spread of the fire we had in a spirit of mischief lighted.

The genesis of the matter was in this wise. In the late (eighteen-) seventies and early eighties a wave of so-called occultism passed over England. Public interest became absorbed in the varied alleged phenomena of Spiritualism, Mesmerism, and thought-reading. The profession of the various branches abounded, and Brighton, where I was editing a weekly journal, became a happy hunting ground for mediums of every kind. I had started an exposure campaign, and had been rather successful. My great score was being the first to detect the secret of Irving Bishop's thoughtreading. In 1882 I encountered Mr G A Smith, a youth of 19, whom I found giving a mesmeric entertainment. Sensing a fraud, I proceeded to investigate, made his acquaintance, and very soon realized that I had discovered a genius in his time. He has since been well known as a powerful hypnotist. He was also the most ingenious conjurer I have met outside the profession. He had the versatility of an Edison in devising new tricks and improving on old ones. We entered into a compact to 'show up' some of the then flourishing professors of occultism, and began by practicing thought-reading. Within a month we were astonishing Brighton at bazaars and kindred charity entertainments, and enjoyed a great vogue. One of our exhibitions was described very fully and enthusiastically in Light, the spiritualistic paper and, on the strength of that, the Messrs Myers, Gurney and Podmore called on us and asked for a private demonstration. As we had made a strict rule never to take payment for our exhibitions, we were accepted by the society as private unpaid demonstrators, and as such remained during the long series

It is but right to explain that at this period neither of us knew or realized the scientific standing and earnest motive of the gentlemen who had approached us. We saw in them only a superior type of the spiritualistic cranks by whom we were daily pestered. Our first private séance was accepted



Frederic Myers

so unhesitatingly and the lack of reasonable precautions on the part of the 'investigators' was so marked, that Smith and I were genuinely amused and felt it our duty to show how utterly incompetent were these 'scientific investigators'. Our plan was to bamboozle them thoroughly, then let the world know the value of scientific research. It was the vanity of the schoolboy who catches a master tripping.

A description of the codes and methods of communications invented and employed by us to establish telepathic rapport would need more space than could be spared. Suffice it that, thanks to the ingenuity of Smith, they became marvellously complete. They grew with the demands upon them.

Starting with a crude set of signals produced by the jingle of pince nez, sleeve-links, long and short breathings, and even blowing, they developed to a degree short of marvellous. To this day no conjurer has succeeded in approaching our great feat, by which Smith, scientifically blindfolded, deafened, and muffled in two blankets reproduced in detail an irregular figure drawn by Mr Myers, and seen only by him and me.

The value of a contribution such as this should lie not so much in describing the machinery as in pointing out how and where these investigators failed, so that future investigators may avoid their mistakes.

I say boldly that Messrs Myers and Gurney were too anxious to get corroboration of their theories to hold and balance impartially. Again and again they gave the benefit of the doubt to experiments that were failures. They allowed us to impose our own conditions, accepted without demur our explanations of failure, and, in short, exhibited a complaisance and confidence which, however complimentary to us, was scarcely consonant with a strict investigation on behalf of the public.

That this same slackness characterized their investigations with other sensitives I am satisfied, for I witnessed many, and the published reports confirmed the suspicion. It is also worthy of note that other sensitives broke down or showed weakness on exactly the same points that Smith and I failed—namely, in visualizing an article difficult to describe in words signalled by a code. A regular figure or

familiar was nearly always seen by the percipient, but when a splotch of ink, or a grotesque irregular figure, had to be transferred from one brain to another, the result was always failure. We, owing to a very ingenious diagram code, got nearer than anybody, but our limitations were great.

Smith and I, by constant practice, became so sympathetic that we frequently brought off startling hits, which were nothing but flukes. The part that fortuitous accident plays in this business can only be believed by those who have become expert in the art of watching and seizing an opportunity. When these hits were made, the delight of the investigators caused them to throw off their caution and accept practically anything we offered.

I am aware that it may reasonably objected that the existence of a false coin does not prove the non-existence of a good one. My suggestion as the result of years of observation is that the majority of investigators and reporters in psychical research lack that accurate observation and absence of bias which are essential to rigorous and reliable investigation. In fine, I gravely doubt not the bona fides, but the capacity, of the witnesses. I could fill columns telling how, in the course of my later investigations on behalf of the Society for Psychical Research, I have detected persons of otherwise unimpeachable rectitude touching up and redressing the weak points in their narratives of telepathic experiences.

Mr Frank Podmore, perhaps the most level-headed of the researchers—and to the end a skeptic—aptly put it: 'It is not the friend whom we know whose eyes must be closed and his ears muffled, but the 'Mr Hyde', whose lurking presence in each of us we are only now beginning to suspect.'

I am convinced that the propensity to deceive is more general among 'persons of character' than is supposed. I have known the wife of a Bishop, when faced with a discrepancy in time in a story of a death in India and the appearance of the wraith in England, [to] deliberately amend her circumstantial story by many hours to fit the altered circumstances. This touching up process in the telepathic stories I have met again and again, and I say, with full regard to the weight of words, that among the hundreds of stories I have investigated I have not met one that had not a weak link which should prevent it being accepted as scientifically established. Coincidences that at first sight appear good cases of telepathic rapport occur to many of us. I have experienced several, but I should hesitate to present them as perfect evidence.

At the risk of giving offence to some, I feel bound to say that in the vast majority of cases that I have investigated the principals are either biased in favor of belief in the supernatural or not persons whom I should regard as accurate observers and capable of estimating the rigid mathematical form of evidence. What one desires to believe requires little corroboration. I shall doubtless raise a storm of protest when I assert that the principal cause of belief in psychic phenomena is the inability of the average man to observe accurately and estimate the value of evidence, plus a bias in favour of the phenomena being real. It is an amazing fact

that I have never yet, after hundreds of tests, found a man who could accurately describe ten minutes afterwards a series of simple acts which I performed in his presence. The reports of those trained and conscientious observers, Messrs Myers and Gurney, contain many absolute inaccuracies. For example, in describing one of my 'experiments' they say emphatically, 'In no case did B touch S, even in the slightest manner'. I touched him eight times, that being the only way in which our code was then worked.

In conclusion, I ask thoughtful persons to consider this proposition: If two youths with a week's preparation, could deceive trained and careful observers like Messrs Myers, Gurney, Podmore, Sidgwick, and Romanes, under the most stringent conditions their ingenuity could devise, what are the chances of succeeding inquirer being more successful against 'sensitives' who have had the advantage of more years' experience than Smith and I had weeks? Further, I

would emphasize the fact that record of telepathic rapport in almost every instance depends upon the statement of one person, usually strongly disposed to belief in the occult.'

Smith and Blackburn's most convincing demonstration took place when Smith was securely blindfolded, his ears stuffed with cotton and putty, and his entire body and the chair he sat in covered by blankets. Myers drew a complicated figure of randomly tangled lines. Blackburn was successful in sending in telepathically to Smith.

When Blackburn wrote his two confessions he was living in South Africa and under the impression that his former friend was no longer living. Actually, Smith not only was alive but he was still employed by the SPR.

In an interview in the *Daily News* on September 4 he denied that he and Blackburn had ever used trickery, and that the feat described above was genuine telepathy. However Blackburn followed with a third article, in the *Daily News* of September 5, in which he gave a detailed account of how the miracle was accomplished. It is hard to believe, but so strong was the mind-set of most SPR members that they believed Smith and accused Blackburn of lying! I know of no parapsychologist today who doubts Blackburn's detailed explanation. Here is an excerpt.

Blackburn began his reply to Smith by writing:

'Why does Smith deny my statement? That we had a code is proved because we gave exhibitions of thought reading at Brighton prior to our experiments with the Society for Psychical Research and no public exhibition without a code is possible.

If I had been aware of Smith's existence, I should not have opened up the subject, for I am aware that Smith spent

many of the years that elapsed since our acquaintance in the close association of the leading members of the Society for Psychical Research in a fiduciary capacity. I am also aware that that position was the legitimate reward for his services in connection with our telepathic experiments. I am sorry that I should have unintentionally forced him into having to defend the position he has so long occupied.

If Smith could see, why did he always fail on irregular things? Because our code didn't cover irregular or grotesque things.

We failed so often on the irregular things that the committee abandoned them in the tests.'

I have not had access to the original newspaper article. The quotation above is taken from Joseph Rinn's Sixty Years of Psychical Research (1950). The following excerpts from the rest of the article are from C E M Hansel's ESP: A Scientific Evaluation (1966, revised edition 1980):

'The committee had realised the possibility of conveying by signals a description of a regular figure or any object capable of being described in words...but the more irregular indescribable...the greater and wider were the discrepancies between the original and the copy...I had a signal which I gave Smith when the drawing was impossible. We made a pretence of trying hard, but after a time would give up...As a matter of fact the committee were beginning to have grave doubts when the 'great triumph' I shall now describe saved our reputation.'

The conditions of the trick were these: Smith sat at a table. His eyes were padded with wool and, I think a pair of folded kid gloves, and bandaged with a thick dark cloth. His ears were filled

with a layer of cotton wool, then pellets of putty. His entire body and the chair on which he sat were enveloped in two very heavy blankets. I remember, when he emerged triumphant, he was wet with perspiration, and the paper on which he had successfully drawn the figure was so moist that it broke during the examination by the delighted observers. Beneath his feet and surround his chair were thick, soft rugs, rightly intended to deaden and prevent signals by feet shuffles—a nice precaution...At the farther side of...a very large dining-room, Mr Myers showed me, with every precaution, the drawing that I was to transmit to the brain beneath the blankets. It was a tangle of heavy black lines, interlaced, some curved, some straight, the sort of thing an infant playing with a pen or pencil might produce... I took it, fixed my gaze on it, pacing the room meanwhile...but always keeping out of touching distance with Smith. These preliminaries occupied perhaps ten minutes, for we made a point of never hurrying. I drew and redrew the figure many



times, openly in the presence of the observers, in order, as I explained and they allowed, to fix it in my brain. I also drew it secretly on a cigarette paper. By this time I was fairly expert at palming and had no difficulty while pacing the room collecting 'rapports' in transferring the cigarette paper to the tube of the brass protector on the pencil I was using. I conveyed to Smith the agreed signal that I was ready by stumbling against the edge of the thick rug near his chair.

Next instant he exclaimed 'I have it'. His right hand came from beneath the blanket, saying, according to the arrangement 'Where's my pencil?'. Immediately I placed mine on the table. He took it and a long and anxious pause ensued.

Smith had concealed up his waistcoat one of those luminous painted slates which in the dense darkness gave sufficient light to show the figure when the almost transparent cigarette paper was laid flat on the slate. He pushed up the bandage from one eye and copied the figure with extraordinary accuracy. It occupied over five minutes. During that time I was sitting exhausted with the mental effort quite ten feet away. Presently Smith threw back the blanket, and excitedly pushing back the eye bandage produced the drawing, which was done on a piece of notepaper and very nearly the same scale as the original. It was a splendid copy.'

Had Myers and Gurney known something about conjuring they would never have allowed Blackburn to give his pencil to Smith.

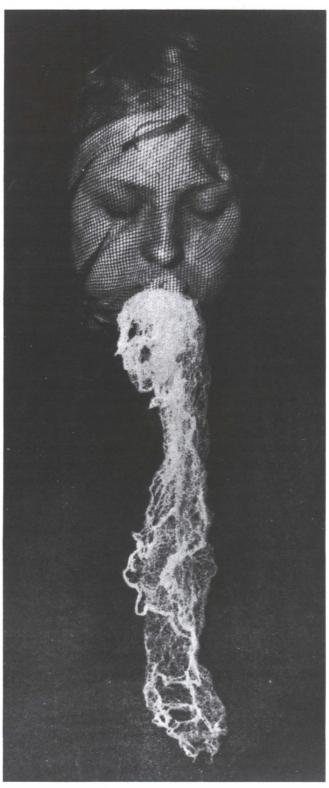
Both Gurney and Myers were intimate friends of the American philosopher, psychologist and psychic investigator William James. According to Ralph Barton Perry, one of the James's biographers, Gurney was the dearest of his friends among the SPR. In a letter to his wife, James described Gurney as 'one of the first rate minds of our time...a magnificent Adonis, six feet four in height, with an extremely handsome face, voice, and general air of distinction about him.' James called Gurney's book on music The Power of Sound (1880) 'the best work on aesthetics ever published'. He praised Gurney's 'metaphysical power', and said there was a 'very unusual sort of affinity between my mind and his...I eagerly devoured every word he wrote.' Phantasms of the Living was for James 'an amazingly patient and thorough piece of work...I should not at all wonder if it were the beginning of a new chapter in natural history.' For James's equally great admiration of Myers, see his tribute to Myers in his Memories and Studies.

Unlike his wife, James's younger sister Alice was skeptical of her brother's psychic enthusiasms, and had a low opinion of both Myers and Gurney. In letters to William she called Myers an 'idiot' and described Gurney as 'weak' and 'effeminate'—a man who had been persuaded by Myers to marry an ignorant woman far beneath him. Curiously, Myers insisted on accompanying his friend on his honeymoon in Switzerland even though Gurney's wife Kate strongly objected. Kate, Alice wrote, chattered constantly on all subjects with 'extreme infelicity'. She was ignored and constantly snubbed by her husband who quickly regretted marrying her.

Gurney killed himself in 1888, in a hotel in Brighton by inhaling chloroform. Trevor Hall, in *The Strange Case of*

Edmund Gurney (1964) conjectures that Gurney's mounting depression was caused not so much by his unhappy marriage as by a realization, many years before Blackburn confessed, of how thoroughly he had been flimflammed by Smith, his trusted friend.

Martin Gardner is one of the founders of the Committee for the Scientific Investigation of Claims of the Paranormal (CSICOP) and author of numerous books about science, mathematics, literature and pseudoscience.



Medium Stanislawa P. produces ectoplasm

Mary Evans

Spirits at Large

Lucy Fisher

A skeptical visit to a spiritualist church

Many nice, intelligent middle class people have no religious beliefs, but are strangely protective of other people's. 'But don't you respect other people's beliefs?' they say, 'Surely if illusions bring comfort you shouldn't interfere? When Marx called religion 'opium' he didn't mean it in a pejorative sense, he meant it was something like valium. His remark is always quoted out of context—what he said was 'Religion is the sigh of the oppressed creature, the heart of a heartless world, and the soul of soulless conditions. It is the opium of the people'.

The spiritualist church in Hornsey looks like a superior scout hut. The sign outside lists the ten precepts of Christian spiritualism, including the fatherhood of God, the brotherhood of man, personal responsibility, the continuance of the human spirit, retribution after death, but the possibility of progress for everyone. Inside the atmosphere is warm, with many potted plants, pictures by Margaret W. Tarrant, woodeffect wallpaper and a carpeted sanctuary. The congregation on a Sunday evening is small. There is a low murmur of conversation. Somehow, it is easier to relax in a roomful of strangers than it is to meditate, for the good of one's health, alone in one's room. No one can deny that religions have social benefits, even if it's only tea afterwards. A man comes out of the vestry and installs himself behind the lectern. He seems about 55, moustached, tieless. He speaks with an accent which could be Polish. He announces a hymn (Blest are the Poor in Heart) and sets off singing, after a count of three in a wavering tenor. There is no organ, and we are led, informally, by a girl in the congregation with a strong tuneful voice.

The officiator introduces the medium, a lady of about 60 in trousers and a mauve and jade cardigan. The only divergence from ordinariness is the ankh hanging from her necklace. Her introductory talk sketches in the beliefs of spiritualism (newcomers are asked to raise their hands). The afterlife sounds like this one, only better. The spirits have everything they want. The body is a 'physical coat' that we wear on the 'earth plane'. After death we will meet 'loved ones who have passed'. The spirit world, not this one, is the real world (which seems counter-intuitive). The old-fashioned homeliness of her address is attractive, there is no New Age jargon. Spiritualists are divided about reincarnation, but personally she believes it. We come here to receive lessons. (But if everything that happens to us in this life is a corrective lesson based on our past life, how do our lessons intersect with everybody else's? And if we deserve people's bad actions towards us, how can the perpetrators be pun-

ished? It sounds like an administrative nightmare for someone). There are seven planes of existence but 'ordinary people like us' end up in the third plane, Summerland.' There is nothing ethereal about it, our spiritual bodies will seem solid. (This is having your dualism and eating it!). It's time for the clairvoyance: 'Don't think about what you want me to tell you, because that will block me.' A collection plate is passed round. Briskly, the performance starts. 'I want to come to you,' she points to two middle aged women who had confessed to being newcomers. The first two names she mentions, Charlie and Frank, are not claimed. They are the names of two of my uncles, both dead. I am tempted to claim them, but too shy. 'A lady called Dolly who is what you call dead. Do you take Dolly, please? The dark-haired woman who is dignified and soft-spoken, denies knowing Dolly. An Annie 'a big lady, big here, you know what I mean' is also not recognised. 'That's what I'm hearing. She's saying you have burned your bridges, but not to regret.' She then offers them three anniversaries, which could be of a wedding, a birthday, a 'passing'. For two she just names a month; for the third she names June 12, and gets the response 'yes'. This sets the pattern for her interactions with the congregation. She uses stereotyped gestures rather like sign language. The dead are behind her. She points to parts of her body to indicate ailments (There's a lady called Florrie, can you take her? She passed with her heart, but I'm getting that she kept going till the end'.) She turns to 'listen' to the spirits. Names are datable, the spirits who bring messages to an elderly lady in the front row are Martha, Ethel, Gladys. After casting around for a name that is recognised, she gives a sentence or two of banal advice, in the Russell Grant class. Her benign folksiness has been replaced by a much more aggressive manner. She wants the answer 'yes'. She closes each encounter by offering three 'anniversaries', a technique which ensures a hit. (Who can think of a month of the year which doesn't have a sister's cousin's niece's birthday in it?) 'I'd like to come to you, the newcomer lady at the back there'. She tells me to uncross my legs, because 'I'm full of wires'. Do I know the name of Slater? I say yes (I know a Lizzie Slater). She then talks about grandparents, one from each side of the family (none called Slater). I smile and say 'Yes, I see' a lot, trying not to give away too much. My grandparents tell me not to change my career or course of study, as I was thinking of doing (I wasn't). 'And post that letter! I don't recognise the names Kathy or Anne, but I am told to 'hold on to them' and ask my mother. Links with America are suggested, and it's

predicted I will go there in the next three years (I really must post that letter to my friend in Ecuador, where I am going in the summer. Does South America count?) A dark-skinned man sitting alone is singled out ('I keep getting Singapore'). All his family who are in spirit are surrounding him with loving thoughts and one of them is wearing a beautiful sari. They tell him he plans to travel to many countries. 'Not exactly' he says. A youngish pretty woman in a fringed suede miniskirt is asked if Dad is in spirit. She says she doesn't know. The medium sees a great cold gap between her father and mother. 'I have to tell you that he is in spirit'. The name Taylor isn't recognised, but it is rapidly changed to a man who used to make tailor-made costumes, who brings the message 'Don't let your head be turned by flattery'. The medium picks out a lady, 'Or is it a gentleman?' at the back. Another newcomer. Unruffled, this woman consistently denies that any of her friends or relatives had anything wrong with their eyes, though the same questions are asked more than once: 'It's your mother, then? I'm not going to take it back'. The spirits tell her that 'all is taken care of, all will be well. Does that make sense? Nothing makes sense to me—I am just the telephone'.

When a man can't place an Arthur with lung trouble, the medium explains 'there are so many coming, I get confused'. He is told: 'Don't be sorry. You did the right thing. They will come back and apologise'. The officiator gets up and thanks the medium for her clairvoyance, reads some notices (healing is on Tuesdays and Fridays at 6 pm) and offers tea for those who want to stay. We stand and sing a moving and beautiful hymn called 'O Love that Wilt Not Let Me Go' The two women who initially denied knowing Charlie, Frank, Dolly and Annie precede me out of the building. Once outside, the dark-haired woman bursts into tears, saying in a broken voice 'I've never—never...' I assume that she has been bereaved, and is crying because she has never had a message from the dead person. The implications of Marx's famous 'opium' remark are further changed by the rest of the passage:

'The abolition of religion as the illusory happiness of the people is the demand for their real happiness. To call on them to give up their illusions about their condition is to call on them to give up a condition that demands illusions.'

I don't respect people's beliefs, I respect people. I respect people too much to respect their beliefs. I want them to really have what they want, not an illusion, because an illusion is fragile, and in any case doesn't deliver the goods. Quite justifiably people want to be reunited with their loved ones; want eternal life, youth, health and beauty. They can't have these things, but they could at least have a functioning National Health Service. Nice middle-class people are also fond of saying that 'we' need a sense of mystery, of wonder. There are things we need more: enough to eat, love and affection, a just society.

More information can be obtained from the Greater World Spiritualist Association, 3–5 Conway Street W1P 5HA (Phone 071 436 7555).

Lucy Fisher is a journalist living in London.

Thicker Than Water

Bernard Howard

Will all great Neptune's ocean wash this blood Clean frommy hand? No, this my hand will rather The multitudinous seas incarnadine Making the green one red.

-Macbeth, on stabbing Duncan [1]

Pretty powerful stuff, this Scottish blood, that a few drops could colour all the world's oceans!

Let us examine the matter from a molecular point of view, as we do homeopathic claims. Consider first Duncan's blood, and allow a generous ten ml (about one-third of an ounce to you pre-metrics) to adhere to Macbeth's hand. This volume would contain about 1.5g of haemoglobin, the red pigment of blood. This is equivalent to about 1.5×10^{19} or 15 million million molecules of haemoglobin [2].

Turning now to 'all great Neptune's ocean', we note that the Earth's total ocean area if 361 million km², and the average depth is 3.81 km [3]. Hence, the volume of the world's oceans is 1.38 billion km³ or 1.38×10^{21} litres [4].

Thus, when Macbeth has washed 'this blood clean from my hand', and it is thoroughly and evenly mixed in the 'multitudinous seas', the colouring matter of Duncan's blood would be present in a concentration of one molecule in about ninety litres. That is, a cupful would have only one chance in about four hundred of containing any haemoglobin at all.

Note that the dilution obtained in this one-step imaginary experiment is far less than the dilutions achieved in ordinary homeopathic practice by the process of serial dilution. In the notorious Benveniste experiments, dilutions of 1 in 10^{120} (in effect zero) were used in ordinary test-tube experiments [5]. To achieve this dilution, Macbeth would have had to wash his hands in a volume of sea water many times greater than the volume of the observable universe.

References

- 1. Shakespeare, W. Macbeth, 1605.
- 2. Bell, Davidson & Scarborough, Textbook of Physiology & Biochemistry, 1963.
- 3. Philips' Universal Atlas, 1981.
- 4. About one-third billion cubic miles, if that is easier to visualise.
- 5. See Skeptical Inquirer, vol 13, no 2, 1989.

Bernard Howard originally wrote this article for the *New Zealand Skeptic*, from which it is reprinted with kind permission.

Calling all skeptics in the **Preston** area! Colin and Margaret Sutherland would like to meet fellow skeptics in this neck of the woods. Contact them on 0772-791620.

Creative Arguments

Donald Rooum

Why don't creationists talk about sex?

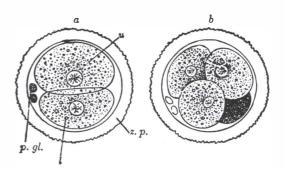
Arguments advanced against Darwin's theory often take the general form, 'Such-and such a biological phenomenon could not possibly have developed by natural selection'. For instance, Bishop Hugh Montefiore, in *The Probability of God*, argues that since polar bears are not preyed upon by anything, there would seem to be no selective advantage in the white colouration which camouflages them in snow. For another instance, the Open University course, *Science and Belief: Copernicus to Darwin*, argues that since small projections on an exoskeleton would be useless for flying, insect wings could not have developed by small increments over many generations.

We might expect both these sources to be well informed, but their supposed counter-examples to Darwin's theory present no difficulty. A polar bear needs to be inconspicuous, not because it is preyed upon, but because it would starve if its intended prey saw it coming and cleared off. David Attenborough's *Life on Earth* (published a little before the OU course), conjectures that the proto-wings of proto-insects may have functioned in temperature regulation.

'Creation science' tracts are full of further examples, all of which can be answered with a little common sense or a plausible conjecture (and since the question is one of possibility rather than fact, a plausible conjecture is a complete answer). Curiously, however, the opponents of Darwin, ignore a well known biological phenomenon for which there is as yet no explanation consistent with Darwin's theory: sex.

Organisms which are male and female, or hermaphrodite, use up a lot of energy on the uncertain business of getting the sperm or pollen to the eggs. Parthogenic organisms like dandelions and stick insects can breed without the pother and waste of getting fertilised. Sex benefits the population by genetic recombination over many generations. But natural selection operates on individuals, not populations, and parthogenic individuals clearly stand a better chance of passing on their genes. The Darwinian presumption is that some ancestor gained some individual advantage from sex, but nobody can think what the advantage might have been.

Single-celled eukaryotes reproduce by simply dividing, but as anyone may learn from a GCSE biology text, they also have sex, uniting in pairs for the sole purpose of rearranging their genetic material. In the animal *Paramecium*, two individuals occasionally stick together while their nuclei divide, and each transfers half of its genetic material to the other. In the plants *Spirogyra and Chlamydomonas*, two individuals occasionally merge into a single individual with



double the number of chromosomes, which divides again with the genetic contents recombined. Again, the genetic combination is of long-term advantage to the population, but it would be easier and safer for the individuals if they stuck to reproduction by dividing. Genetic recombination certainly occurs among bacteria, but the mechanics of transfer are still in doubt because it is difficult to catch them at it. When sex among simple organisms is better understood, we may be able to say what started it. For the time being, however, imaginations are flummoxed.

One might expect opponents of Darwin's theory to attack this point of weakness with enthusiasm, banging on about sex at every opportunity. But in fact they hardly ever mention the subject. Why not? I do not know, but I offer a plausable conjecture.

Argument from design.

There is a classic argument for the existence of God called the Argument from Design. In the lucid language of William Paley (*Natural Theology*, 1815), 'Suppose I had found a watch upon the ground, and it should be inquired how the watch happened to be in that place, I should hardly answer that for anything I knew, the watch might always have been there. The watch must have had a maker, who comprehended its construction and designed its use. Every indication of contrivance, every manifestation of design which existed in the watch, exists in nature, with the difference on the side of nature of being greater or more, and that in a degree which exceeds all computation'.

This is an elegant argument, of which creation science writers seem very fond. Their books have chapter headings like 'The Amazing Design of Living Things' and 'The Incredible Cell'. Darwin's theory does not logically imply the non-existence of a Divine Creator, but it answers the Argument from Design. Perhaps the main intention of creation science is to rescue the Argument from Design from being answered.

It is difficult to talk of sex without thinking of our own sexuality. If creation scientists were to mention sex, that would draw attention to human reproductive organs, and to the messy way in which our reproductive organs are conflated with our excretory organs. One can hardly rescue the Argument from Design by mentioning that. What sort of Designer puts the nursery in the sewer?

Donald Rooum is a cartoonist with a degree in biology.

Psychic Diary

Toby Howard

Eating an over-priced lunch in an over-priced and over-plush hotel recently, I watched as people passed the Hotel Pool, a concrete monstrosity surrounded by plastic flowers, installed, rather unnecessarily, plum in the center of the dining lounge. And, I kid you not, almost every one of the people threw a coin into the water. There were no signs exhorting them to do so; no Charity boxes; no religious icons or paraphernalia; no encouragement whatsoever, save the coins already in the water. Gazing into my extortionate cappuccino, I wondered what these people were doing worshipping water in twentieth century Manchester.

People have been throwing things into water for thousands of years, believing that water is accompanied by controlling spirits which need to be appeased. And what better gift could there be (apart from blood, or a subscription to The Skeptic), than money. The custom of throwing coins and other gifts into water, and making a wish, is still as strong as ever today. You can see it everywhere: look into any public well, pool or fountain, and the bottom will be covered in coins. The older and more distinguishedlooking the site, the more financial attention it attracts: Charles Kightly in his Customs and Ceremonies of Britain (Thames & Hudson, 1986) reports that a well in the crypt of York Minster was full of modern coins within a few weeks of it being opened to the public. Of course, it's absurd to imagine that the act of throwing gifts into water will affect one's destiny, or anything else, but as with many customs, that's not the point. It is the act of participating that is important.

Most people think of wishing wells as sources of benevolence, but as Janet and Colin Bord point out in their book *Sacred Waters* (Granada, 1985), some wells were

'cursing wells' specifically geared up for granting nasty wishes to the detriment of chosen victims. But it is important not to insult the well itself, or it may withdraw its favours. In this respect wells can be quite finicky: they do not like women washing clothes in them, for example, or animals bathing in them, and certainly not mad dogs.

Today, we take water for granted. Just turn on the tap, and there it is. In fact, when it doesn't, it can be quite worrying. Working at home (now there's a euphemism) recently I turned on the cold tap to fill the kettle. When the only thing that emerged was a metallic rattling, I had a moment of panic - visions of windswept sand dunes and gasping nomads flashed before my eyes. In a historical sense, if you imagine the social impact of a rural well running dry, it is not hard to see how the importance of wells became the focus of much superstition. Well dressing, for example – the annual ritual of placing vegetation and gifts around a well – is a very ancient pagan practice. It still flourishes each year in Britain and Europe, although for hundreds of years it has been appropriated by the Christian Church, and varnished with a non-pagan respectability, like so many other customs.

Back at the Hotel Swanky, I was still contemplating the mystery of it all when the waiter arrived brandishing a very large bill. As the air became thick with after-lunch conversation ('Good grief, £6.40 for a roast beef sandwich?') I looked towards the pool and its hoard of waterlogged loot, sitting invitingly. No ... I wouldn't dare. The water spirit would be displeased.

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





Skeptic at Large

Wendy M Grossman

What am 1?

The book which ruined my reputation forever as a sane tube traveller was recommended to me by an otherwise intelligent, sophisticated, well educated woman. You have to imagine the scene: people sitting quietly on the train, coming home from work. And then there's me, screaming at this Penguin paperback.

Actually, I suspect the authors of *Brainsex*, Moir and Jessel, were rather hoping people would be enraged by their book; it would mean they were onto something. In my case, all they've come up against is my fury at being categorized. It was exactly the same when people told me that I couldn't sing songs I liked because I 'wasn't the type'. How would I know if I didn't try?

What bothers me is not the scientific research in *Brainsex*. If research genuinely shows that there are significant biological differences between the brains of men and women, then we'll all just have to grit our teeth and accept it. What bothers me is Moir and Jessel's arguments, which seem to me poor, to say the least.

Moir and Jessel's central tenet is that we're different, we might as well accept we're different, and instead of railing against it accommodate ourselves to it. How are we different? Well, according to them, the male brain is superior at abstract thought, at the single-minded pursuit of a goal that Moir and Jessel have decided is the hallmark of genius, and at spatial relationships. The female brain, on the other hand, is more emotional, more intuitive, blessed with a superior understanding of human relationships. They bolster their theory with quotes from scientific research. Women, they say, are making a mistake and measuring their achievements by the male standard; instead, we should revalue our work (like child-rearing and housekeeping) according to our values, not men's.

Now, let's think about this one. I agree that there are happy housewives, and I know from reading their stories that they feel let down by the women's movement's assumption that their work is a) valueless and b) unfulfilling. But the dramatic changes in women's lives we call the women's movement did not come about because some small hormone-influenced clique decided women ought to be unhappy. It came about because many, many women are and were unhappy and dissatisfied with the limitations of their lives. Women demanded the change.

One of the questionable items Moir and Jessel call upon to bolster their argument is the fact that girls tend to score lower on IQ tests. No matter how scientists worked to remove the sex bias, they say, boys still scored higher. Their conclusion: it can't be anything wrong with the tests. Really? This sort of reasoning is very well explored in Stephen Jay Gould's brilliant *The Mismeasure of Man*, recommended reading for every skeptic (or indeed non-skeptic), which traces the history of white male science's attempts to prove that white middle-class men are smarter than everyone else on the face of the planet. We have a word for this: bigotry.

Another questionable theory: men are biologically unsuited to marriage (and school, by the way), so the worldwide success of the institution of marriage is entirely due to women's brilliant social engineering. But men have a choice, in every culture. They are physically stronger (I admit that). Logically, therefore, if men had an innate unsuitability for marriage, marriage would not exist.

Moir and Jessel love quoting mothers about how their children conform to sexual stereotypes even though they've made an effort to raise them in opposite ways. Well, take a couple of kids of my acquaintance, aged 11 and 7. She (11) is a whizz at math; he is struggling with it. He is a brilliant reader; she is now, but she wasn't at his age. He loves cuddling. She is more distant, and was at his age as well. And so on: completely backward. But this, would say Moir and Jessel, is not significant because it's just one case.

I maintain that Moir and Jessel's book would not have been written in the US, not because Americans are less willing to accept challenges to our prejudices, but because American gender roles have changed much faster than those in the UK. As a journalist I have had occasion to track down experts in a number of science and technology fields both here and in the US, and there is one thing that stands out in the US: there are a lot of professional women out there. In fact, one consistent lament among expatriate American professional women is that they miss having a community of other professional women around them. They come to this country to be welcomed by snide comments, hostility, and prejudice among their male colleagues, and they are shocked.

Society has taken millions of years to evolve while women were regularly incapacitated by pregnancy; we have only had control of our fertility for 30 years, a very short time in which to change whole cultures. My prediction, for what it's worth, is that Moir and Jessel will be proved dramatically wrong in their assumptions about what men and women can and cannot do.

Moir and Jessel would undoubtedly look at me and the way I live and work and conclude that I was doused with male hormones while I was still in my mother's womb. Anyone got a time machine? Let's go back and check this out.

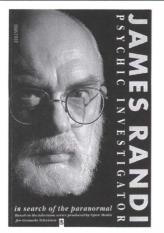
Wendy Grossman is the founder of *The Skeptic*, a member of the UK Skeptics, and a writer and folksinger.

The Skeptic

Reviews

In search of the paranormal

James Randi, James Randi: Psychic Investigator, ITV séries, and book, (Boxtree, 1991, 158pp, pbk, £6.99)



Randi's prime-time TV series and the accompanying book must have given the skeptical viewpoint its highest profile in the UK media for a long time. Granada TV and the Open Media production company deserve congratulations for tackling the difficult business of making successful, sound skeptical programmes. The question is, how well did they succeed

in making balanced, watchable TV capable of countering the influence of, shall we say, less rational media output and did the programmes cause the viewing public to examine critically their beliefs in paranormal topics?

The six programmes, of which I was in the studio audience for four, followed a similar pattern. They commenced with Randi performing a conjuring trick or a simple demonstration to give the audience reason to question any subsequent apparently-wondrous happenings. Guests were then brought on to demonstrate their powers. Along the way, there was some discussion—or at least the canvassing of opinion from invited luminaries in the front row and the audience at large.

The recording sessions of up to two and a half hours or so were condensed into a slot of around 25 minutes on the box, concluding with the exhortation 'We show you the evidence, now you make up your own minds.' A good deal of the recording time in some shows was taken up by a few performers refusing to stop after their allotted time and impromptu speech-making by them or aggrieved parties in the audience.

The 'healers' show made the biggest impression on me. It featured 'psychic surgeon' Stephen Turoff, who appalled me and probably many others. Unlike most healers, Turoff actually makes incisions in patients' flesh and sticks forceps a long way up their noses (for reasons not entirely apparent)—without any sterilisation of his implements. This is all carried out under the supposed direction of a highly-unconvincing spirit guide with a stage German accent. It is disturbing to note that, in contrast to a similar 'healer' practicing on animals, the only legal impediment to Turoff's practices seems to be the dubious one of a patient bringing a charge of assault against him.

The most spectacular 'hit' in the series—the only one I think that could be really counted as a hit—was achieved by one of the least likely performers, map dowser Michael Cook. His technique consisted of asking questions of a pendulum akin to a large droplet earning which was not necessarily even dangled over the appointed spot. The earring clearly understood his questions sufficiently well to reveal to him the whereabouts of ancient monuments on an ordnance survey map from which all relevant information had been removed. Amazingly, he correctly plumped for the square containing the target abbey. His earring did, however, incorrectly insist that there was also a monument in another square. Before plundering a jewelry box for intelligent glassware you might consider to what extent clues from the terrain increase the odds of success from 1 in 24; you should also bear in mind important background information available in the book but not to TV viewers. Studio security lapses meant Cook could have known the answer beforehand, although Randi is careful not to suggest that he actually did. The earring's ability to confirm other dowsers' declared 'hot spots' on the studio floor were less conclusive.

On a less specific note, I wonder how many of the performers will have increased their trade as a result of appearing on the programme. I guess Michael Cook will have profitted for one. I sincerely hope that Turoff's trade will be diminished.

The trouble with the closing 'we show you the evidence...' is that, of course, what we were shown was rather limited and the tests unsatisfactory in many ways, as a concession to TV. The somewhat relaxed protocols used could have worked in favour of the performers in several cases although they probably didn't. In view of these relatively lax controls, I felt there was room for more information about proper testing procedure. Blind testing wasn't explicitly mentioned, although the contrast between performances when the expected result was known and when it wasn't was made clear. The mysterious probabilities quoted for chance successes could have been very quickly explained at least in the case of the matching five pairs case $(5 \times 4 \times 3 \times 2 \times 1)$ which was used several times. However, the book does explain hot and cold reading and the sitter's unreliable recall of séances.

One chapter of the book is unrelated to the TV series. It is concerned with the Great Seers David Icke, Nostradamus, John Dee and Mother Shipton. Informed skeptics will find most of the book's material familiar apart, perhaps, from some of the performers, but they are presumably not the intended audience. It is likely to be the only skeptical volume currently in the paranormal section of your average local bookshop and one hopes it is selling well and acting as somewhat of an antidote to the the other contents of the

shelves. I feel its major fault is a lack of references apart from passing mention of Randi's Flim-Flam and The Faith Healers and some heat directed at Psychic News. A bibliography surely is important for a book based on a show where people were urged to see the evidence and make up their own minds.

My extremely limited audience research of reasonablyneutral acquaintances gave a rather disappointing response which I trust wasn't really representative (but fear might have been). The discussion sessions seemed to go down particularly badly and there was a feeling that the shows were too rushed. Nonetheless, despite some reservations about both the show and the book they were both worthwhile ventures and I hope we can expect more of the same in the future.

—Dave Love

Interfering in reality

Michael Talbot, The Holographic Universe (Grafton £17.99)

The holographic universe is the idea that the universe is analogous to a hologram. It is an object created by a deeper implicit reality. All objects in our explicit reality are products of the entire underlying reality. Or put another way, every piece of the implicit reality records our entire universe, just as every piece of a holographic film records the whole holographic image.

The creator of this idea, physicist David Bohm, invented it to explain various curious phenomena in physics. But Bohm is not the only scientist to use it. Biologist Karl Pribrim has come to the conclusion that the brain works holographically. The book lists various experiments in memory, brain and vision research which convinced him of this. These are just some of the scientists who have come to the fascinating conclusion that the world around us is just made up of interference patterns and our brains use these to construct the world we believe to be reality. This is not to say it does not exist only that it, like a hologram, cannot be fully understood without knowledge of the deeper reality.

Michael Talbot has taken this idea and used it to explain how a wide range of paranormal and supernatural things are possible. For example it explains how the mind and body can be separate and how the mind can travel to other places and times. This only requires the mind to perceive other points of the implicit reality. The author quotes many scientists and non-scientists who have used the idea of a holographic cosmos to explain the paranormal. It seems like a new explanation has come along and lots of believers are grabbing it to explain how the thing they believe in works! The book, or rather the first two chapters which lay the scientific foundations, has stirred up my curiousity about this idea, and I would recommend them and their references as a starting points for anyone interested in the idea.

If anything paranormal is ever proved to exist, but cannot be explained using normal science, then it may well be worthwhile examining the holographic universe idea. But at present I do not think a very strong case can be built using a scientific idea (not a theory, just an hypothesis) which does not have much scientific support to try to explain the workings of phenomena whose very existence has yet to be satisfactorily established.

-Sean O'Brien

Assessing Nessie

Steuart Campbell, *The Loch Ness Monster* (Revised edition, Aberdeen University Press, 1991, 128 pp., pbk, £5.95)

It is no accident that the marine denizen of Loch Ness has become the archetypal anomalous phenomenon; not even the visitors from outer space have been able to oust it from top billing in the paranormal pantomime. Nessie has everything: a substantial body of testimony, together with a sufficiency of supporting evidence to keep debate open without such a sufficiency as would determine the matter one way or the other.

Consequently, the whole debate is able to simmer away merrily, with each participant regrouping the available data to fit his particular line of approach. The results have been varied; but among them have been studies of sufficient quality that they are valuable, not simply as contributions to this particular quest, but as textbooks in the art of anomaly research.



Steuart Campbell's book is one such. Those familiar with his writings will know him to be meticulous to a fault, a trustworthy researcher and a hard-headed analyst. All these qualities are displayed in this, his only full-length book. Also displayed is Campbell's honesty, in confessing to a change of mind. Back in 1975 he wrote:

There are adequate stocks of fish in Loch Ness to sustain a colony of monsters. Available evidence suggests that there does exist in the Loch a breeding herd of creatures descended from the pre-historic plesiosaur. No eye-witness would agree with the idea that it is an apparition. (BUFORA Journal 4:7, May-June 1975)

While these words, taken literally, do not imply that in 1975 Campbell was himself a believer in the existence of Nessie, they do suggest that he was at that time not altogether hostile to that possibility. Evidently, as a result of his closer researches, Campbell has reached a firmer and more skeptical position. While one must always be on one's guard against the fervour of the convert, it can equally well be seen as evidence of his open-mindedness, adding credibility to his eventual negative conclusion.

The reader has the right to ask how Campbell's book rates by comparison with the other leading studies. Setting Gould as out-dated and Holiday as eccentric, how does it compare with Bauer, Binns, Whyte, Dinsdale? No one could question the value of Bauer's study, but it is more valuable as a contribution to the social dynamics of anomaly research than as a survey of the evidence. Mackal contains valuable material but his account tends to reflect an individual viewpoint. Binns is devastating, but tends to overstatement, for example in his estimate of Dinsdale's capabilities, while Dinsdale's own book, though essential reading for its firsthand documentation, is inevitably a personal statement. Of the anecdotal accounts, Whyte's remains the most readable, a fair-minded and honest book. The Nessie scholar will wish to have all these books, and also Nicholas Witchell's useful chronicle because it has the most comprehensive collection of illustrations.

However, set alongside these, I have no hesitation in ranking Campbell's as the most thorough and objective analysis of the evidence. It is a pleasure to read his nononsense setting-out of the facts. He is, of course, unsparing in his exposure of others' weaknesses, but I did not detect him ever being other than fair in his evaluations. Particularly welcome is the way in which he provides lucid explanations of the mechanics involved—for example, when he is evaluating the sonar findings. I cannot recall another book in which the evidence is presented so clearly and intelligibly.

What, then, are we to say of his final verdict: 'In my view there is absolutely no reason why anyone should believe in the existence of lake-monsters'? Taken literally, I think most of those who read this book will feel they have no choice but to agree. But to say that there is no good reason to believe, is not to say that we should dismiss the possibility altogether. Campbell's explanations are always plausible, often convincing: but let us not forget that they remain speculations, offered after the event. I say this, not to question his verdict, but simply to put it in perspective.

One thing is certain: anyone who now comes up with fresh evidence cannot hope to derive any support from Nessie's past form: Campbell has given us cause to question every claimed sighting made hitherto. His superbly researched and thoroughly argued analysis sets a new standard in evaluating the evidence for Nessie. Unless even stronger evidence is forthcoming in the future, it seems likely that the Loch Ness Monster must henceforward give up its ambitions to join the world's fauna, and be content to be a part of its folk-lore.

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-Hilary Evans

A flawed encyclopaedia

John Spencer (Ed.) *The UFO Encyclopaedia* (Headline Book Publishing plc, 1991, xi+340pp, £16.95)

Ufology constitutes an interesting phenomenon, and is worth a detailed examination to see how far its claims are justified; at the very least it raises issues to do with the power of the human imagination. The difficulty is in moving beyond tabloid sensationalism and examining the subject in a serious way. In reaching a balanced conclusion on the significance of UFOs, a handy reference book covering the major angles would be invaluable.

John Spencer's UFO Encyclopaedia could have been that book, but it fails to live up to its promise, all the more surprising bearing in mind the author's position as Vice Chair of BUFORA, the British UFO Research Association. The overwhelming impression is a procession of biographies of people who have had a connection, sometimes tenuous, to the subject. This is largely to the exclusion of critical articles, and tends to make dull reading. The function of many of these biographies seems to be to suggest that because numbers of eminent people have endorsed the 'nuts and bolts' view of UFOs, there must be something to it. There is also an emphasis on the 'gee whizz' aspect which creates an imbalance. Thus the bizarre Aetherius Society is given 22 lines, plus separate entries for "Sir" George King and for his "Interplanetary Parliament", yet SETI-the Search for Extraterrestrial Intelligence—rates only 12 lines.

Some of the entries are also listed in an eccentric fashion. Crop circles are to be found under "circles, comfield"; apparitions of the Virgin Mary are found under "BVM connection". This would not be such a problem if the cross-referencing had been adequate. Some items are astonishingly trivial: Did Denis Healey warrant an entry for photographing a few circles, "in fields near his home", or Fallon's abduction in the American soap *The Colbys* rate half a page? Do we care that Sid Patrick was abducted by an alien called Ziena?

There are omissions too. Jung is quoted on the back cover, and is in the bibliography, but does not rate an entry. Truman is quoted, but the controversy concerning the MJ-12 forged signature is not. Autokinesis is featured, but nothing else on perception and the problems of eyewitness testimony. A major disappointment was the short bibliography, which is only three pages, especially as the introduction stresses the mass of material available. Some of the photographs are interesting but too many snapshots by the author, and "artists' impressions", have been used. Why include a photo of the backs of delegates' heads at a conference?

There is an air of outright gullibility in some places. Von Däniken is given an uncritical entry, and so is the Piri Reis map on which he leans heavily as evidence for ancient astronauts. Both have received extensive critical batterings, and it is hard to believe that von Däniken's theories are still as popular as is asserted. The quite lengthy discussion of Gulf Breeze takes Ed Walters's version at face value, and the entry on cultural tracking, the finding that UFOs often mirror the technology of the day, does not include the rather obvious possibility that if people invent sightings, it will tend to be in terms of what seems likely at the time. Some items are wrong. An Out-of-the-Body experience is not the same as a Near Death Experience, as is implied, although the latter may incorporate the former. We are told of the 'Missing Norfolks' that "no explanation of the event has ever been given". On the contrary, Paul Begg gave a very plausible account in his 1979 book *Into Thin Air*.

Considering the fact that this expensive volume was produced under the auspices of BUFORA, which does have a reputation for careful research, it is disappointing. The analytical entries are far too short, so that the reader is left with a breathless succession of cases, but little to tie them together. On the other hand, it is a useful tour through some of the phenomena if used cautiously, though those people with an interest in the subject would be best advised to borrow it from the library rather than sporting out for a copy of their own.

—Tom Ruffles

Anarchy can be fun

Donald Rooum, Wildcat ABC of Bosses (Freedom Press, 1991, 48 pp., pbk, £1.95)



Donald Rooum will be well-known to regular *Skeptic* readers as the hand behind *Sprite*, that mischievous spirit who has haunted these pages (in the nicest possible way) for a number of years. Rooum is a prolific illustrator and writer, and one of his long-standing creations is 'Wildcat', a violent, dishevilled, bad-tempered, articulate (and ultimately almost loveable) anarchist cat, who takes every opportunity to comment on the nonsenses and injustices of our society.

In ABC of Bosses Rooum's subject is evil, particularly

the evil inherent in authority, as personified in the 'boss' figure. Lest this sounds like a recipe for tedious political pamphleteering, let me assure you that nothing could be further from the truth. This book is *hilarious*. Rooum is a gifted artist blessed with the ability to make you laugh with words and images, while at the same time making serious political and social statements.

In the book, mild-mannered anarchist intellectual Mr Free-Range Egghead delivers a lecture with slides to a meeting of the Cleckheckmondsedge Literary and Philosophical Society. Mr Egghead takes us through an anarchist alphabet, with a quotation and accompanying illustrations for each letter—F is for 'Freedom is promised by every swindler. One should always ask, freedom from what?'; L is for 'Leaders are people whose initiatives are followed voluntarily. When bosses claim to be leaders this is a swindle', and so on. As Tony Gibson writes in his foreword, Rooum shows us 'the painful truth that the political "left" is as ridiculous as the political "right".

The views expressed in this book are certainly extreme, and the images often violent, and in some cases disturbing. Rooum puts his ideas across with flair and humour, and whether you are a leftist, rightist, centrist or anarchist, he will make you laugh, and think.

—Les Smith

Combatting cults

Jean Ritchie, The Secret World of Cults (Grafton, 1991, 241 pp., pbk, £4.99); Steven Hassan, Combatting Cult Mind Control (Collins, 1990, 226 pp., pbk, £7.99)

Magicians are specialists in deception, but the masters of the art are unquestionably those who run cults. Imagine giving up your job, your hobbies, your friends, your family, and your house on a moment's notice at the behest of an acquaintance of a few weeks. You think it couldn't happen to you, right? Well, according to Steven Hassan and Jean Ritchie, authors respectively of Combatting Cult Mind Control and Cult, it can. Hassan and Ritchie approach the subject from different angles, but reach the same conclusion: cults are dangerous. Ritchie, whose other books include biographies of Myra Hindley and Leslie Grantham, writes as a journalist. Taking most of the major cults one at a time, she recounts the history of the cult and the life story of its leader and his (usually) unsavoury (usually) practices. She then, through the story of one or two disaffected cult members, explains how the cult works (usually by outrageous exploitation of its members) and what its beliefs are.

Ritchie includes most of the familiar cults—Scientology, Hare Krishna, the Unification Church (Moonies), Rajneesh, Jehovah's Witnesses—some less familiar cults—Children of God, the Central London Church of Christ—and some groups you probably didn't think of as cults—est, Lifespring, some New Age beliefs, and the Mormons. She also includes a chapter on Satanism, and here skeptics may feel a bit let down: while she admits there is no evidence that children have been ritually sacrificed, she seems to believe firmly that such sacrifices do take place, and that heavy metal

music can be dangerous.

One thing both Ritchie and Hassan do particularly well is demonstrate the way the major cults have bought their way into the commercial mainstream (much like the Mafia). The Mormons, for example, by carefully investing the ten percent tithe it demands from its members, have come to own the Marriott hotel chain, most of Utah, Beneficial Life Insurance (which is huge), land throughout the US and Canada, some local TV and radio stations, and a substantial part of Hawaii. In addition, the Mormons are the largest shareholders in no less a newspaper than the Los Angeles Times—and they've done all this while believing that all humans are inhabited by spirits from a planet near the star Kolob.

Many of the cults hire PR firms to whiten their images; some run charities as fronts; others take out 'public information' advertisements on unrelated subjects (a recent fullpage ad in *USA Today*, for example, alleged a bias towards the pharmaceutical industry on the part of the Food and Drug Administration; the ad was taken out by the Church of Scientology). For this reason, Hassan warns that if you are approached by someone claiming to be from an organisation you are unfamiliar with, it is always worth asking what other groups the organisation is connected with.

Hassan himself is an ex-Moonie who left the cult when, trapped in his parents' house by a broken leg, was forced to listen to evidence from several ex-members (it's worth mentioning that Hassan believes devoutly that God answered his mother's prayers for him). Hassan, who now works as an exit-counsellor for cult members, therefore focuses on the workings of mind control, which he distinguishes from brain-washing.

In a typical recruitment weekend, he says, you are deprived of sleep, of independence, and even of decent food. Awkward questions will always be answered in 'the next lecture'. Attempts to leave are discouraged, and you, the new recruit, are 'love-bombed', that is, showered with warmth and attention just for being there. Being off-balance reduces your critical faculties and impairs your judgment, making you vulnerable; absorbing the cult's methods of 'mind-stopping' (such as chanting or concentrating on your mantra) whenever anyone raises an uncomfortable question stills doubts. Finally, planting fear in the recruits' minds of what will happen to them if they leave serves to keep members loyal—and paranoid.

Explaining the mechanics of how cult mind control works is Hassan's way of inoculating others against cult recruitment practices. And, he warns, most of these cults believe deceiving new members is a perfectly acceptable way to treat them: after all, it's for their own good; it's saving them from the evil world out there.

Both Ritchie and Hassan distinguish mind control cults from the mainstream religions by discussing free choice. Cult members, they argue, are not given full information about the cult's beliefs; they are discouraged from asking questions; they are prevented through fear from leaving. I think this is a hard distinction to make. Certainly some of the fundamentalist groups work a great deal like cults. Beyond that, what church honestly encourages critical ques-

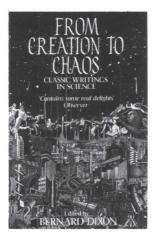
tioning of the tenets of its beliefs? What church doesn't have great wealth collected at the expense of its members? Perhaps the difference is merely that the mainstream churches are older, have less easily falsifiable beliefs, and are simply more familiar. Tax them all, I say.

—Rachel Winston

Not all scientists are illiterate

Bernard Dixon (Ed.), From Creation to Chaos (Cardinal, 1991, 356 pp., pbk, £5.99)

For both the professional scientist and the interested layreader alike, From Creation to Chaos offers a wealth of



evidence to dispel the popular myth that scientists make dry and uninteresting authors.

As the title suggests, diversity abounds in many dimensions. Drawing on the writings of distinguished scientists, philosophers, and even the odd politician, the extracts range from some of the earliest writings in Western science to pieces published within the last decade. The

editorial panel, consisting of four well-known scientific writers and popularizers, have managed to bring together works spanning four centuries that cover many different disciplines, and treat science at all levels. Amongst the extracts concerning sciences from Astronomy to Zoology can be found thought-provoking reflections on the nature and value of scientific inquiry itself, and a delightful piece by Churchill showing a depth of understanding of the sciences and their possible future applications in society that many would hesitate to credit any politician with.

Controversy manages to creep in too. Quite a few popular mis-beliefs are swept away, leaving little room for argument. Several extracts deal with the relationship between science and religion, or with the conflict between the scientist's 'reductionist' approach and the 'holism' implied by intuitive understanding.

Extracts from memoirs and autobiographies conjure up the excitement of some of the greatest discoveries ever made. Darwin's account of the development of his ideas that led to the *Origin of Species*, and the recollections of Otto Frisch concerning his collaboration with the eminent physicist Neils Bohr that led ultimately to the discovery of nuclear fission, add a very human element to the collection.

There's something for everyone in this book. If it is not enough that the writings are of a consistently high quality, and often very witty, then the sheer range of topics covered make this anthology an excellent sampler to inspire further reading in areas that may not have previously seemed appealing. Heartily recommended.

—Ian Piumarta

Letters

27

Wordplay revisited

Radios are a hoax. Lewis Jones says so (The Skeptic, 5.4, page 8): 'You thought it was hard enough hearing or seeing a transmitter's electrical activity standing right next to it? That's another fact you'll have to lose. And the fact that radios incorporate neither ears nor eyes for handling messages beaming through space. In spite of this, we're told that radios can tune in precisely to a given station, filtering out all information transmitted by other stations, not to mention the interference from the sea of light and sound in which we all thought we lived. And if these convenient waves can pass through mountains and the walls of buildings, how come they don't pass through the radio of a would-be receiver?'

Whoops! I seem to have substituted the word radio for brain, and made other substitutions which turn Jones's argument against ESP into an argument against radios. But since the line of reasoning is sound, must it not apply by extension to the case of radios as well?

> **Dr Martin Dace** London

Of dates and toads

For some time I have found myself a little irritated that book reviews in The Skeptic do not carry the date of publication. Some books can be quite elderly by the time that the review appears, and the date is helpful in obtaining a copy. For example, the review in issue 5.4 of Stephen Braude's The Limits of Influence (priced at £10.99) is presumably of the paperback reprint, as my hardback copy was published as long ago as 1986, and cost £25. Readers might easily think that the book was newly published. On a separate issue, the second part of Lewis Jones's article 'Why not to test a psychic' sets up a straw toad that no Fortean would subscribe to. It is ludicrous to suggest that the amphibian was hermetically sealed inside a rock for millions of years; quite clearly there must have

been a crack through which it obtained air and nourishment.

> **Tom Ruffles** London

English disease

I subscribe to The Skeptic: I also use colons in the middle of sentences, not to convey meaning but to show how cleverly I can use punctuation. To the same end I use un-necessary and outmoded hyphenation whenever I can.

As one who cherishes the purity of the English language, I abhor the adoption of American coinages such as 'radio' and 'scientist', which pollute our mother tongue. The use of such words, along with the heinous practice of ending a sentence with a preposition, is the kind of sloppiness (or sloppity) up with which I will not put.

It was, therefore, with great satisfaction that I read the letter from MW Evans (Letters, The Skeptic, 5.4). As he so rightly says, writers such as Mr Woods should be prevented from having their work published in your organ. Indeed, I feel that the kindest thing would be to expel such writers from our ranks altogether and recruit a more literate following. At least David Icke does not split his infinitives.

It seems to me that standardisation of language is required. Why should the British public endure the diverse styles of, for instance, Alexander Chancellor, WM Deedes, Bernard Levin and Keith Waterhouse when we could instead have Mr Evans rewrite their work in a single, consistent and clear style like what he has shown us how.

I attempted to rewrite Mr Evans's letter just as he had attempted to rewrite Mr Woods's article. The result amounted to five words, the first four of which were 'I am a pedantic'. I concluded that Mr Evans's letter did not need to be rewritten. It conveys its message to us with a preciseness that no words from me could improve.

> Mike Walsh Kettering

Living language

I have enjoyed subscribing to The Skeptic for a year or so now but find it irritating when space is wasted on tendentious letters like that from M W Evans (The Skeptic, 5.4) complaining of illiteracy in contributions from others, particularly when his own use of the English language is idiosyncratic to say the least.

I will simply make the point of fact that English usage is not fixed by some immutable law: it is a living, growing language which changes over a period of time, its usage being determined by those who speak it—otherwise we would all be speaking and writing like Shakespeare or Chaucer or in the language of Beowulf.

All that M W Evans can reasonably expect is that the editors of journals exhibit some degree of control over the contributions they print so that they are intelligible to the readership and follow what seem to be the currently used and accepted forms (which certainly do not encompass either 'they we need' or 'them we need'-most people would say 'those we need' or, more straightforwardly, 'we need them').

MW Evans thinks he is attacking illiteracy when he does not even comprehend its meaning; nor does he understand the nature of language and its use and development: what he is exhibiting is carping and ill-informed pedantry. Please, Editors, exercise your editorial prerogative and cut such pompous drivel to make room for something more worthwhile.

John T Wilson **Penzance**

One of the majors

Your review of Carl Lofmark's books Does God Exist? and What is the Bible? (The Skeptic, 5.4) says that they may be 'highly recommended' and that they 'deserve the attention of a major publisher'. That is what they received.

Nicolas Walter **Rationalist Press Association** London

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