

the **Skeptic**

Volume 13, No 4 (Summer 1993)

Registered by Australia Post - Publication No NBH 8121

news and reviews



John Hansen defies the flames

Miracles
Fire Walking
Book Reviews

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From the President

Another successful year for Australian Skeptics is coming to an end with this issue. In 1993, the number of subscribers has increased by more than 20%, the largest increase in both numbers and percentage in our 13 years of operation.

This success is due, in no small measure, to the unstinting efforts of the small number of people who serve on the branch and national committees, to the many contributors to the magazine, to our friends in the news media and to you, our loyal subscribers.

But we cannot rest on our laurels. Despite our successes, interest in irrational beliefs continues to flourish and we can only remain effective in countering this trend, if we continue to grow.

You can contribute to our growth and to the continuing

success of the enterprise by encouraging your friends to become subscribers and by making people aware of our activities.

I must caution all of you, however, not to make statements on behalf of Australian Skeptics or which commit the organisation to anything. Such statements and commitments must, for legal reasons, come only from the Committee.

We have completed a major task this year, in the publication of our composite issue, In the Beginning, which is now available and I commend it to you.

Finally, I wish all of our subscribers a happy holiday season and predict that the world will not come to an end in 1994.

Barry Williams

the Skeptic

Vol 13, No 4

ISSN 0726-9897

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Branch Dinner

Following the outstanding success of our dinner to celebrate the end of the world in 1992, the NSW Branch will hold a another branch end-of-year function to celebrate the fact that once again the world did not end (this time on November 14, 1993) and to launch the composite edition of the first five volumes of *the Skeptic*, titled:

**In the Beginning:
 The first five years of *the Skeptic*.**

The venue will be the Chatswood Club and cost of the dinner will be \$25.00 per head for a three course meal (drinks not included).

Date	Saturday, December 11
Time	7.00 for 7.30
Venue	The Chatswood Club 11 Help St Chatswood
Cost	\$25.00 per head

All Skeptics (and friends) are invited to pre-book using the loose-leaf insert in this magazine (NSW Subscribers only).

Renewals

Some of our subscribers will receive a Subscription Renewal Notice in this issue. Others, who have a continuing subscription, will not.

We strongly urge those whose subscription is due to respond as quickly as they can, as late renewals take up a great deal of the time of the committee, time that could be better spent on improving the magazine.

We hope that our efforts throughout 1993 have met with your approval and that you will consider that your subscription represents value for money.

If, however, you have a reason for not renewing your subscription, we would appreciate your letting us know. This may tell us where we are going wrong and it will save you from receiving increasingly hysterical follow-up notices.

If you did not receive a Renewal Notice in your magazine, it is probable that you have a continuing subscription and need do no more to continue receiving *the Skeptic*.

If in doubt about your subscription, phone, fax or write to us at the addresses shown at the side of this page.

**Editors: Barry Williams
 Harry Edwards**

**Subscription:
 1993 - \$25.00 pa**

the Skeptic is published four times per year by the National Committee of Australian Skeptics Inc. Views expressed in articles and letters are those of the authors and are not necessarily those of the National Committee of Australian Skeptics Inc. Articles may be reprinted with permission and due acknowledgement to *the Skeptic*.

News and Views

Thanks to Brett Christian, a WA reader, who sent us a clipping from *Fire Ground*, the journal of the Western Australian Fire Brigades Board. The clipping headed "Tragic Start to Winter" tells the story of an elderly lady who burnt to death in a retirement village and points out the dangers of placing heating appliances too close to lounge chairs and other flammable furniture.

This is not the sort of story that would normally interest *the Skeptic*, except that the accompanying photograph showed many of the features of rooms in which people have supposedly been the victims of 'spontaneous human combustion' (SHC). The fire was confined to the lounge chair and a pouffe. Other furniture, newspapers and a vase of flowers on a low table appeared to be relatively untouched and there appeared to be scorching of the walls near the ceiling.

These are all supposed to be typical of SHC cases, which seldom mention whether sources of heat are present in rooms where this occurs.

A very well presented BBC film a few years ago claimed that in almost every case where SHC was alleged to have occurred, an obvious source of combustion was in fact present, although this fact was left out of all of the sensationalist reports.

* * *

Congratulations to 1992 Skeptics Journalism Award winner, Graeme O'Neill, formerly of the *Melbourne Age*, now of *Time Australia* on his receipt of the 1993 Eureka Award for Environmental Journalism.

* * *

I know Ian Plimer claims that the world is not going to end in the year 2000, but something decidedly odd is going on.

A few weeks ago during the lunch hour, I was walking down Park St, towards its junction with Pitt St (Sydney), and there, sitting on the kerb and looking not a little perplexed, was a brown duck.

Now I am no ornithologist, but I suspect the streets of Sydney are not the normal habitat of the wild duck.

But the really interesting factor was the reaction of my fellow *homo sapiens*. Dozens of them walked past and the only other one who even acknowledged the presence of the duck was a young woman dressed in a courier's uniform. We exchanged an amused greeting, whereupon the duck, having presumably found its bearings, took off in a westerly direction, narrowly missing a passing monorail train.

My point is, a wild creature, obviously a long way from its natural environment, sat in a Sydney street and very few people took any notice. What does this say about eye-witness accounts of unusual events?

* * *

A few days later, while waiting for a change of lights at the intersection of Liverpool and Elizabeth Sts, I took note of the only other person at the intersection.

He was a bearded, middle aged man, neatly dressed in Akubra, tweed jacket and moleskins. A typical countryman visiting the Big Smoke, you might have thought. Well you might have, except for one incongruous note - fore and aft, he wore placards proclaiming:

"UFO - Christ's 2nd Advent Jerusalem, May 2018".

As I sought to draw him out on this startling prediction, he skipped nimbly away through the traffic and, when last seen was travelling down Elizabeth St at a brisk trot.

I don't know what it all means, but surely it must be an omen of something.

* * *

An article in the August 28, 1993 *New Scientist*, "Chill warnings from Greenland" describes the successful completion of a project to drill through the Greenland icecap to a depth of 3,029 metres. The main purpose of the article was to address the evidence thus gained about past climate and fears about a new 'Ice Age', but it does have one unintended piece of bad news for New Earth Creationists.

The ice core removed from the drilling gives climatic details back 250,000 years, approximately 40 times the age of the Universe as claimed by the creationists. The age is determined by the annual depositions of snow and it is difficult to conceive of how the creationists might logically argue the multiple depositions per year required to account for this evidence.

There is certainly no evidence in the bible for 40 or more winters in any year, nor indeed is there in any other ancient writings.

They could of course invoke a miracle, but then they do claim to be scientists, so miracles are not allowed.

In any case, miracles are not explanations of anything, they are merely excuses.

With the failure of the NASA Mars Observer to enter an orbit about the Red Planet, the conspiratologists have emerged from the woodwork in their droves.

The most common complaint is that NASA aborted the mission to avoid revealing the remains of a civilisation that once existed on Mars. The evidence for this civilisation stems entirely from a picture taken of the Martian surface by the Viking probe in 1976, which revealed a geological formation bearing a superficial resemblance to a human face. Chief among the conspiratologists was one Richard Hoagland, a former NASA employee, who has spent years trying to convince anyone who would listen that the 'face' is evidence for a civilisation that once existed on Mars. He has 'computer enhanced' this single piece of imagery to such an extent that he has found pyramids, cities and, for all I know, Sydney Opera Houses on the Red Planet. To the best of my knowledge, no-one has yet claimed that the face is that of Elvis, but I would not be surprised to be proven wrong.

To overcome the obvious objection to this hypothesis, i.e. why would NASA spend up to \$US 1 billion to send the probe and then turn it off just as it neared Mars, he claims that "there is an inside group in NASA that does not want this pursued". NASA has, of course, denied this.

If, as seems possible, the mission failure was caused by a glitch in the probe's clock, then it is amazing that NASA did not call on the services of Mr U Geller, the well known remote chronometer repairer. Mr Geller has claimed that NASA approached him to repair a stuck antenna on the Galileo space probe *en route* to Jupiter, a claim that NASA has also

dismissed (very negative, these NASA types).

What I cannot understand is why Messrs Geller, Hoagland and others don't combine their skills and provide us with unequivocal evidence for their fantastic claims, rather than blaming their failures on conspiracy.

* * *

Can any of our chemists answer a question for me? How is it, when you add water to certain packet soups, you end up with dry and crunchy croutons floating on top? Is this paranormal or what?

* * *

The Great Australian Science Show in Sydney, though not as successful in raw numbers as those previously held in Melbourne and Brisbane, was still a worthwhile exercise from our perspective.

By an unfortunate accident of timing, the Friday of the show coincided with the announcement of the successful Sydney Olympics bid, an occurrence which drove every other bit of news from the media, including interviews that would have drawn more attention to the show.

It also coincided with the Grand Finals of the two popular football codes which no doubt also served to reduce the numbers. Despite this, the Skeptics benefited from the exposure and we were involved in several of the publicity activities associated with the show.

In particular, several fire walks attracted the attention of the media and Paul Rigg and John Hansen are thanked for the great effort they expended in making these a success. Steve Walker, Peter Rodgers and Kent Blackmore entertained and instructed visitors with their magic tricks and contributed greatly to the

success of the stand.

Steve has a new trick in which he catches his right hand in a rabbit trap and will henceforth be known as "Lefty".

Volunteers Daryl Colquhoun, Bruce Bokor, Pam Waugh, Brian Robson, Lachlan Partridge, Barbara Carrard, John Stanley, John Postlethwaite and Gary Dalrymple all contributed to the success of the venture and we apologise to Robert Dean, who volunteered to help but who we could not contact in the run-up to the show.

We were pleased that a number of subscribers to the magazine made time to meet us at the show and at the level of interest and support shown by the visitors, most of whom were most encouraging in their comments. We were even pleased to talk with those who thought we were completely wrong, as they added spice to an already interesting event.

We are particularly grateful to the Australian Science Network and its directors Mike Pickford and Simon Monk for presenting the show, to Debbie Withers for organising the publicity and to the Commonwealth Department of Industry, Technology and Regional Development, whose financial support of the show allowed voluntary organisations like Australian Skeptics to take part at minimal cost.

* * *

In the last issue of News and Views, we mentioned that the TM movement had conducted a "Meditate In" in Washington DC, with the view to reducing the crime rate in that rather deadly city. It must have been a very successful event because a recent news broadcast showed citizens of Washington asking the US Government to put the National Guard on the streets to help curb the rapidly *rising* murder rate.

Adam Joseph, president of our Victorian branch sent us this contribution to News and Views. "Talking Melbourne 3AW", Melbourne's No1 rating radio station, took an unprecedented step recently by sacking the self-proclaimed "Internationally famous clairvoyant" Tom Wards.

The story began on the Paul Barber drive program when a regular contributor called "Voice of the suburbs" screamed hysterically after hearing Wards giving one-on-one readings of listeners future prospects, on the midnight to dawn Sunday program, with announcer Alan Pearsall. Listeners, who would say very little except to introduce themselves, asked to be told their future. Wards went on with the usual 'psychic' generalisations that most of the listeners could relate to, "There is a figure of \$478,000 could come your way within seven days, weeks, months or years. Best numbers for you are 4, 14, 26, 11, 17, 19 and 3..."

This was given out to several listeners within a 45 minute session, the only things that changed were the numbers, and Wards was not even in the studio feeling vibrations, he was on the phone from somewhere else as were the listeners ringing in. Fortune telling is really becoming high tech!

3AW Program Director Steven Price called for a tape of Wards' last appearance after hearing complaints emanating from Barber's program. He then took the unprecedented step and went 'live' with Barber and declared the sacking of Wards. Price said "Having listened to the tape, it seems to me that it's just a load of rubbish. I'm happy for Tom Wards to have people go round and look at him eye to eye and do readings, if that's what he thinks he's good at doing, that's fine, that's none of my

business, and I don't care whether he makes a fortune out of doing that or doesn't make a fortune out of doing that. I was disturbed to think that we were actually allowing people to ring up and say 'Hello Tom Wards, my name's Paul, tell me my future'. It is just claptrap. So I'm sorry Tom, we may have invited you to come on the program, and if we did perhaps we shouldn't have. We don't want you doing that sort of thing any more.

"There are gullible people out there who could in fact change the course of things they may be thinking. You might strike someone at a very vulnerable time who suddenly says 'We'd better not sell our house', or 'We'd better sell our house', 'We'd better not go on a holiday to Queensland'. So I just don't think we need that".

In a media that often relies on promoting paranormal thinking because it can be 'fun', and an attitude of anything to capture the ears and eyes of listeners, it was a brave step.

Maybe Price copped a bit of flak from Wards' followers after the public debunking, but he also copped a hearty congratulations from the Australian Skeptics and was immediately snapped up as a special guest on "The Liars' Club" radio show on 3RRR a few days later.

One would like to think that other stations might now follow the lead of a top rater like 3AW, taking the plunge in censoring for common sense for its listeners. Maybe Network 7 television can hire Price as a consultant? Then there are tens of magazines in great need of his help. Mind you, the readership may fall off slightly initially, but one would hope that rationalism would win out in the end.

Australian Skeptics have never made it their business to lobby the

media to rid our culture of the so-called 'psychics'. By all means, let the 'loopies' remain for entertainment purposes, but why not have an alternative view presented at the same time, a few debates with them, then let the listeners, viewers, readers decide after hearing both sides.

Tom Wards incidentally was the first winner of the Australian Skeptics "Bent Spoon Award" in 1982 for 'predictions in the popular press renowned for their inaccuracy'. The "Spoon" is given to the most outrageous perpetrator of paranormal piffle we can find. Mr. Wards did not bother to collect his award. We wonder if he foresaw his 3AW sacking? **AJ**

* * *

We wonder if the 7 Network will be rushing to buy a recent production from Sun International Pictures, producers of such *magnum opi* as *Ancient Secrets of the Bible*, which the network showed recently.

The latest offering from the company is *The Incredible Discovery of Noah's Ark* and it told the amazing story of one George Jammal, who had not only found the Ark during a 1984 visit, but had hacked off a piece of wood from the vessel to prove that it was there.

The only fly in the ointment was that George Jammal was an actor, who had never been near Mt Arrarat and the supposed relic of the Ark was a piece of pine, soaked in some juices and baked in his oven. These facts were revealed by Gerald Larue, University of Southern California emeritus Professor of biblical history and archaeology, and member of the Skeptics Society, who had coached Jammal in what to say.

This programme was aired on the US CBS Network earlier this year amid claims that it "clinched the

argument about Noah's Ark."

Larue, who had been interviewed (and had his comments cut) for the earlier *Ancient Secrets* show, said that he had conducted the hoax to show the poor research that Sun used in producing its shows, which he described as "unfair pseudoscience".

When the hoax was revealed, both Sun and CBS made predictably weak excuses for having been fooled.

With any luck, this will be a lesson to programme directors in this country before they promote this kind of pseudoscientific drivel (although I wouldn't bet the mortgage on it).

* * *

Skeptics often ask, "If psychics and astrologers are so smart, why aren't they rich? Why, if they know so much, don't they use their superior skills to, say, back a lot of winners?"

A recent experiment might just give a clue to the answers to these questions. On the Channel 7 (Melbourne) *News* on November 1, three psychics were asked to predict the winner of the 1993 Melbourne Cup.

We present their predictions, the starting price of each and the position where the horse finished in the 24 horse race.

Kris Fontaine "Tarot card reading astrologer"

Air Seattle 10-1 (21)

Simon Turnbull "Psychic"

Our Pompeii 5-1 (14)

Shabnam Ramzan "Psychic"

Fraar 15-1 (13)

The Phantom 8-1 (8)

Our Tristalite 25-1 (24)

Only one of the selections even finished in the first half of the field and that was the third favourite. Curiously, of the five horses selected by 'psychic' means, only two started at a longer price than the winner *Vintage Crop 14-1*, so 'psychic

vibrations' must tend to emanate more strongly from favourites.

In fact, only five horses started at odds equivalent to, or lower than, the winner, while the place getters, *Te Akau Nick 160-1* and *Mercator 125-1*, must have been vibrating at subsonic (or subpsychic) frequencies.

So the answer to our questions would appear to be, "If they backed their psychic predictions, they would soon have the seat out of their pants".

* * *

Interviewed by Adam Joseph on the Skeptics radio programme, Gary Wiseman, promoter of the recent Geller visit, said that "psychics were not infallible, but that they had about a 15-20% advantage over non-psychic individuals". If that were true, then surely the evolutionary benefits conferred by this advantage would have by now ensured that all humans were psychic, or have I got it all wrong?

* * *

By coincidence, the day after typing the previous story I received a copy of *Basis*, the newsletter of the Bay Area Skeptics. It contained a review, by Joseph R Garber, of a book *The Innocent Assassins*, by palaeontologist Bjorn Kurten.

One of the essays in the book, quoted by the reviewer, made exactly the point I sought to make above. If psychic powers existed, they would have provided a great survival benefit and evolution would have done the rest. For this reason, Kurten says flatly that psychic claims violate the fundamentals of biological science. Mind you, the coincidence makes one wonder about synchronicity, but not a lot.

* * *

Those non-sceptics who allege (quite unfairly) that our tactics smell of the gutter, would have had their prejudices reinforced by a photograph that appeared in the *SMH* on November 18.

It showed Prof Ian Plimer, Head of the School of Earth Sciences at Melbourne University (and no stranger to these pages), up to his waist in sewage, in a sewer 'somewhere under Sydney'.

Ian was making the serious point that effluent sludge had the ability to concentrate heavy metals, including gold, and that city sewers often contained more gold than some mines.

We are now trying to confirm the rumour that the name of Ian's department is to be changed to the "School of Earth Closets" and that the School's motto will henceforth be "*There's gold in them thar stools*" (in Latin, of course).

* * *

The Rationalist Association of NSW has released its latest booklist, containing free thought works not readily available through ordinary bookshops.

The booklist is available free of charge from the Association at 58 Regent St, Chippendale NSW 2008. Ph (02) 310 2218; Fax (02) 310 2364.

* * *

We note, with relief, that the world did not end on November 14, as predicted by a curious sect called the White Brotherhood, which is centred in Ukraine but has adherents around the world. It had made dire predictions about Armageddon and raised fears of mass suicides when the prediction did not eventuate.

Stand by for further End-of-World claims as 2000 nears. **BW**

BRANCH NOTES

Victorian Attitudes

Adam Joseph

As the newly-installed President of the Victorian branch of Australian Skeptics, I thought a few lines might be in order, not that I'm suggesting for one minute that all state president's should have a 'President's Column'. That would exhaust all the one-liners we pass on to Barry 'Fire-eater' Williams in his esteemed piece. But as all Victorians appreciate, we have had a lot of action in this neck of the woods.

In the last two years we have had to cope with being thrown out of Creationist meetings (or at least be asked to stop asking questions from the floor), debating the same subject with the Christadelphians, testing diviners, giving talks in Bendigo, Warrnambool and anywhere else someone cares to invite us to, running a weekly radio program, appearing on television at every opportunity to promote rational and critical thinking, sending in 'letters to the Editor' - any editor in fact, to try and bring balance to an issue, putting together stands at two Great Australian Science Shows and providing speakers and volunteers to give out literature and information, launching the *Creationism : Scientists Respond* book, running a hugely successful 1993 National Convention, and so on and so on. It has been a very busy two years.

I suppose this is my way of introducing a small tribute to Ian Drysdale, the President for those last two years. It is a very difficult thing to pull together a group of volunteers who are prepared to expend a great

deal of their own time pushing an ideal that is one of the most difficult in the world - asking people to *question*. Ian Drysdale has been able to do just that with great success, and leaves behind a solid body of people that I believe are committed to furthering that cause.

Ian is an engineer and inventor and is as eccentric as the rest of us. His current invention and passion of the last few years is a two-wheel steering, two-wheel drive motorcycle, which has caused a great deal of interest worldwide. To facilitate the time required for further research and development, not to mention trying to raise money to finish the venture, Ian has decided to throw his full-time efforts into getting the project off the ground. To that we say good luck, Ian, and thank you for your much appreciated leadership.

Victorian subscribers will have already noticed that a newsletter has been introduced recently with goings on and future events. We propose to send this newsletter out quarterly, in between issues of the *Skeptic*.

Our Speakers' Forum has also been increased in frequency to every two months, and we plan to introduce some interesting people, topics and debates in 1994. All information about our activities will be contained in the newsletter and *the Skeptic* and we hope that all Victorian subscribers will support these efforts wherever possible.

Any Victorians who feel they may be of assistance in future projects, or have interesting ideas to contribute,

please give us a ring on (03) 850 2816, or fax (03) 878 1145.

* * *

The new Victorian Committee is as follows:

Adam Joseph - President
 Dr. Stephen Basser - Vice President
 Chris Jones - Secretary
 Debra Boyce - Treasurer
 Dr. Steve Roberts - Librarian
 Kathy Butler
 Shane Delphine
 James Gerrand
 Peter Hogan
 Professor Ian Plimer
 Tony Prout
 Glen Capuano
 Doris Leadbetter

* * *

On behalf of the National Committee, I would like to add our thanks to Ian Drysdale for his unstinting efforts on behalf of the Skeptics and to wish him all success with his business venture.

Ian, who in the flesh bears a startling resemblance to photographs of the late Mr Ned Kelly, belies his looks and has presided over the Victorian branch for the past two years with the utmost integrity and dedication.

Adam Joseph, the new president, is a former professional radio presenter and actor, who now runs his own audio and video studio. His professionalism in the media is evident in the *Liars Club* programme he presents on 3RRR, a programme that has been instrumental in increasing the exposure of the Victorian public to the ideas and philosophies of the Skeptics. **BW**

NEWS

Foot Feat Not So Hot

Barry Williams

Some months ago, I was phoned by a man who told me that he had heard that the Skeptics had information on how to walk on coals without burning the feet. On my enquiry as to why he wanted the information, he explained that he and a friend wanted to do it to show some other friends that they didn't need to pay large sums of money to the perpetrators of some 'personal development' course to learn how to do this, but that they merely needed to understand a few fundamental laws of physics.

Now that is just the sort of attitude that any Skeptic likes to hear, so I advised him of where to find the information and invited him to attend our next committee meeting and to report on the results of the experiment. This he and his friend duly did and, such was their enthusiasm for the work of the Skeptics, that we invited John Hansen, a physicist and Paul Rigg, an aircraft engineer, to join the committee.

In September, when I was approached by Mike Pickford, organiser of the Great Australian Science Show, to provide a newsworthy event to assist in the publicity for the Show's first Sydney appearance, I thought that a fire walk should be a sufficiently bizarre demonstration to attract the denizens of the popular press. John and Paul agreed to perform their party-piece and so the scene was set for the first official Australian Skeptics Fire Walk.

In a 'traditional' firewalk, large amounts of timber are burnt and allowed to reach the stage of glowing coals over a period of hours. No doubt the sight of the leaping flames and the long wait, which would give time for the primitive emotional reactions to fire to take effect, are used by the promoters of fire walking to enhance their messages about mystical experiences. But the exigencies of a media event do not allow for such time consuming preparations. John and Paul, having tested their theories in practice, decided that commercially available barbecue fuel would make the point just as well and at a considerably lower cost in time and money.

The evening before the Show opened, a fire walking track was constructed, using rammed earth bricks. The fuel was burnt in a half 44 gallon drum and when the

coals had become sufficiently hot, they were emptied onto the track and raked flat. At the behest of the TV crew from the *Hinch* programme and the print media representatives, John and Paul poured kerosene onto the coals and then blew on them with an electric fan to encourage leaping flames and showers of sparks. They then waited until the fire died down before again raking the coals flat. By this time it had become dark and the large audience composed of media representatives, sceptics and other exhibitors were illuminated by the red glow from the coals. To the casual passer-by they may well have appeared to be participants in some sort of Satanic ritual.

Now came the test of the Skeptics' theory which holds that walking across coals at a temperature of 6-800 degrees relies on physical rather than psychic energies; that because coals have a low thermal mass and poor conductivity, the walker can cross the coal-bed at a brisk pace with little chance of being burnt, always bearing in mind that it is still potentially a very dangerous activity.

It was interesting to note how our two demonstrators approached their task from different perspectives. John, the cool and rational scientist, calmly explaining the difference between 'heat' and 'temperature', while Paul, discovering in himself a latent talent for show-biz, hammed it up considerably. Both walked across the coals and, much (I suspect) to the secret relief of even the sceptical members of the audience, neither fell to the ground clutching singed feet. To increase the dramatic effect of the walk, Paul and John dropped pieces of kerosene soaked paper along the sides of the coal-bed and the consequent conflagration added to the Satanic ambience, although they were careful not to walk too close to the flames. Several further walks followed and then the *Hinch* journalist was prevailed upon to try it for himself, a feat he accomplished with elan and with no discernible damage to his feet.

During all of this, I had been standing around, explaining to people that this was a simple exercise in standard physics and required no special preparation of the mind, psyche or any other nebulous concept. I was astonished to hear, from a representative of the Plastics

Industry Association, that several member companies of the association had sent staff members on courses that included fire walking as one of their components. This, she said, was as a result of the Training Guarantee Levy of the Federal Government causing companies to spend a certain amount of money on staff training or face a tax penalty. As she explained, technical and professional staff can easily find courses which will extend their skills, but in the case of managerial and sales staff, the sort of courses available tended towards the nebulous and vaguely new ageish 'personal development' sector.

If this is true, then it strikes me as being a particularly fine example of how governments can adopt a superficially useful idea which ultimately results in a crackpot scheme for inducing the waste of money and resources. In a depressed economy, this confirms to me in my long-held view that the 'lunatics are in charge of the asylum'.

But enough of the philosophical speculation and back to the event. I watched while several people, urged on by the media representatives and with no psychic conditioning or preparatory chanting of mantras, walked across the coals without inflicting damage on their feet. Then came the question that I had been dreading, "Why don't you have a go?"

Now I make no excuses for the fact that I am a founding member of the Registered Cowards Association, but I have an even better excuse for not walking on hot coals. I suffer from a serious arthritic condition in both knees which sometimes manifests itself in one or other of my knees suddenly locking. This is very painful and has sometimes resulted in falls. My normal response is to stop and massage the affected knee until I can continue walking. The prospect of this happening when I was in the middle of a sea of glowing coals did not appeal. The trick involved in fire walking is to keep walking and not allow the feet to remain in contact with the coals for long enough for conduction to supply too much heat to the soles.

All of this flashed through my mind as I began to unlace my shoes and responded "Yeah, why the hell not?" A small, still voice inside me kept saying "You silly old bugger" but my bravado was not to be denied. Suddenly, I was on the brink of the coals, which seemed to stretch much further into the distance than the three metres I had previously measured. I would like to be able to claim that I screwed my resolve to the sticking place, girded my loins, or any of the other clichés beloved of a certain type of popular novelist, but the fact is I

merely stepped onto the coals and kept going until I reached the end.

What did it feel like? For a start, the surface was quite rough, not unlike a gravel road, and it hurt my feet a little, though not to any great extent. The heat was much less than that I have felt while walking barefoot on a bitumen road in mid-summer. In fact, I felt more heat from the radiation from the coals than I did from the direct contact or conduction. My feet experienced a tingling sensation, which remained with me until I arrived home and had a shower. This I put down to my soles drying out and needing to be rehydrated by soaking in water, although I can see where some people might feel that this was evidence for some sort of mystical energy, or inner strength, induced by the words of wisdom they had been subjected to. To me, it just seemed like my feet had dried out.

So I had tested my theory about fire walking and could then have retired triumphant with the knowledge that I had 'done it', but, as if to prove the adage that 'there is no fool like an old fool', towards the end of the evening, I decided to do it again. This time my knee locked in mid-walk and I had no option but to keep going. It hurt immoderately and the cameras caught a grimace of pain on my face which they generously did not put to air. The slight hesitation, or a protruding cinder, caused a small blister to appear on my foot a few days later which confirmed me in my view that, while walking on coals without being burnt is quite feasible, it nonetheless remains a bloody silly thing to do. If, on this occasion, I had stumbled when my knee locked, the Skeptic could well be looking for a new editor and Harry Edwards could have at last achieved his life-long ambition of writing the "About our Authors" column.

What has this experience done for me? As far as I can tell, my aura has not altered one whit; I have no sensation of mysterious energies flowing through me; neither my soul, nor my soles have been uplifted. I don't believe I have become a better and more spiritual human being, nor do I appear to have received any other indefinable benefit at all. If anything, I have a small feeling of satisfaction of having done it, but I do not rank it highly among my list of accomplishments. I would not recommend fire walking as a spiritual experience.

Oh yes, there is just one little difference in my life. In the days following the broadcast of the *Hinch* programme which featured the walk, several casual acquaintances and even a couple of total strangers approached me and enquired about the state of my feet. I guess I have had my 15 minutes of fame. ■

MIRACLES

The Good Oil

Barry Williams

Recently I failed to witness a miracle. This will probably come as no surprise to readers of the Skeptic, to whom failure to witness miracles is almost certainly the norm, but I had been assured by the media that a miracle was occurring, on call and my failure left me despondent. I was invited by the Hinch programme (Channel 10) to attend St Thomas' Catholic Church in Willoughby (a Sydney suburb near my home) at 6.00pm on August 25. There, it was claimed, I would witness a miracle-worker in the person of Mirna Nazzour, a Syrian 'mother-of-two', who was afflicted with the curious ability to make olive oil ooze from her palms at regular intervals. Sensational media reports of this phenomenon insist that the oil has been tested in laboratories and shown to be 100% pure. She is also alleged to show signs of 'stigmata', i.e. bleeding from the palms, feet forehead and side, mimicing the wounds acquired by Jesus during his crucifixion. I have always been dubious about stigmata, research having shown that in crucifixion, as carried out by the Romans, the nails went through the wrists, not the palms. Nails through the palms would tear out too easily and would not keep the body upright. Yet stigmatics tend to bleed from the palms, which indicates an explanation other than a supernatural one. The underlying text of the publicity about Mirna's visit was that she conducted 'healing', though she made no such claims in my hearing. My previous knowledge of the activities of the Catholic church, apart from the occasional wedding and funeral, had been confined to watching old movies starring Bing Crosby and Barry Fitzgerald, but I had formed the opinion that if the Catholics were good at anything, it was music and ritual. This naive assumption did not outlast its first contact with reality, as the ritual, far from impressing tended towards the tedious, while the music had none of the majesty of the Verdi Requiem, but rather leaned in the direction of pop. Once there occurred an event which almost caused my scepticism to waver. As the miracle worker rose to speak, a flash of lightning, followed by an impressive roll of thunder, illuminated the building. I was prepared to give the Catholics full marks for stagecraft, but the audience of some hundreds did not

even seem to notice. The programme was sponsored by the Papua New Guinea Chinese Catholic Association of Australia (I did not make that up), and this led to the reiteration (at least 50 times) of a prayer to Mary in English, Cantonese, Pidgin and whatever language Mirna spoke, possibly Arabic. At this point I must say that, while Pidgin may be a very useful language in a country that boasts some 700 different dialects, as a language of ritual it leaves a great deal to be desired. I don't know why they gave up Latin, which at least sounds impressive, even if it is only used for reading out a laundry list. After almost two hours, Mirna addressed the assembly and assured them that she did not claim to heal anyone, or at least that is what her translator asserted she had said. A bishop from the Greek Melkite Catholic church, a group of which I had not previously heard, appeared not to understand much of what she said and, as his English was none too fluent, the message received by the congregation appeared to be that she wanted the churches to come back together (although I would not bet on it). As a disinterested observer, it seemed to me that this pious hope is destined for failure if Catholics continue to sit during the singing of hymns, while Protestants (as I understand it) insist on standing up. At the end of proceedings, Mirna stood at the front of the church and gave her blessing to those who wished to receive it. Standing immediately behind her during this, I noted that her blessing consisted of marking a cross on each person's head with a piece of cotton wool soaked in olive oil, which was being replenished by a young priest from a plastic bag he held. There was no other sign of any other oil. I left at this point and was surprised to learn, when the Hinch episode went to air, that the oil started to ooze from Mirna's palms shortly thereafter. We are all familiar with the "Shyness Effect" which, according to psychics looking for an out, precludes paranormal phenomena from occurring when sceptics are present, but it seems remarkable that this effect should be so powerful as to preclude an omnipotent god from performing miracles. Perhaps the explanation is a little

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MIRACLES

Apparitions and Shrines

Harry Edwards

The following article is in response to Damian Pope's request (*Letters, the Skeptic* Vol 13, No 3) for information about Fatima.

As a young teenager in war-weary London I used to form a queue outside any shop with a couple of mates then, as others joined the queue, would walk away leaving people blissfully waiting to buy they knew not what. On other occasions we would stand on the footpath staring intently at the sky. Within minutes a crowd would have gathered to join us in our vigil - looking at what? Sometimes I would ask whether anyone could see "it", more often than not the answer was "yes" without anyone even asking "what?"

While teenage pranks may seem far removed from religious shrines, the parallels serve to illustrate two things - conformity and self-induced visual experiences - essential precursors in deciding what becomes a religious shrine and where it is established.

There are literally tens of thousands of shrines throughout the world, no culture is without them, but for the purposes of this article I propose to deal with only four of the most celebrated in the Western world - Guadalupe (Mexico), Lourdes (France), Fatima (Portugal) and Medjugorje (Yugoslavia).

Before giving an overview of these shrines, however, it should be noted that all four (and the vast majority of those not mentioned) are located in countries where the religion is predominantly Roman Catholic, and therefore, a brief introduction to Catholic dogma and doctrine may assist in understanding why this is so.

Mary

Otherwise known as the Blessed Virgin, Virgin Mary, Our Lady, or simply the BVM, she was the mother of Jesus referred to in the Christian Gospels.

Destined to become the mother of the Christ, God infused her soul with grace at the moment of conception in the womb of her mother, St Anne, which freed her from the consequences of "Original Sin" - hence the "Immaculate Conception". The early church patriarchs, believing that God could not be born of woman, discouraged worship of the Mother-figure. Constantine I forbade the worship of Mary and ordered all goddess

temples destroyed. By the eleventh century she became more popular than Jesus and was hailed as the saviour of humankind; the great Gothic cathedrals built to honour her still stand today. The "undefiled virgin" was raised from the dead by Jesus and assumed into heaven as a living woman. The Assumption becoming an article of faith in 1950.

Devotion to Mary is part of Catholic liturgical life and the studies, doctrines, devotions and dogma associated with her are collectively called "Mariology."

Marian apparitions

The appearance or manifestation of the BVM has been reported hundreds of times over the centuries along with other paranormal phenomena such as brilliant lights, spinning suns, burning bushes, weeping statues and so on. Percipients identify the apparition, usually in the form of a luminous woman, as Mary, who, if and when she speaks, foretells of apocalyptic disasters and that the reign of the Anti-christ is imminent, urging people to repent, pray and do penance. Although Catholic dogma states that apparitions are not ghosts it accepts that the phenomena are permitted by God. In some cases the apparition asks for churches and shrines to be built to her, and where the apparitions have been deemed authentic by church authorities it is to these sites that millions flock in search of miraculous cures.

Guadalupe

Or more precisely, the Basilica of our Lady of Guadalupe, is a Roman Catholic church situated in Villa de Guadalupe Hidalgo just north of Mexico City. It is Mexico's chief religious centre, to which hundreds of thousands of pilgrims from all over the world come each year to worship and pray for miracles. The two principal objects of veneration are "a miraculous cloth" and a portrait "not made with hands".

As told in the sixteenth-century *Nican Mopohua*, ("an account") (Henderson 1979a p v) legend has it that in 1531 an Aztec peasant, Juan Diego, a recent convert to Christianity, heard a voice calling, "Juanito". He then, at the foot of a hill named Tepeyac, came across an apparition of a young girl radiant in a golden mist, who

identified herself as “the ever-virgin Holy Mary, Mother of the True God” and said, “I wish that a temple be created here quickly, so that I may therein exhibit and give all my love, compassion, help and protection, because I am your merciful mother..”. She also instructed the peasant to hasten to the palace of the Bishop of Mexico and say, “that I manifest my great desire, that here on this plain a temple be built to me...”. Bishop Juan Zumarraga was unconvinced and asked for a sign. Reporting back to the Virgin, Juan was told to gather some flowers, wrap them in his mantle, and take them to the doubting priest.

Granted another audience, he unfolded the cloth and, when the flowers were scattered on the floor, they formed a drawing of the precious image of the ‘ever-virgin Holy Mary, Mother of God’. The Bishop then placed the cloth in his private chapel “until the temple dedicated to the Queen of Tepeyac was erected where Juan Diego has seen her” (Callero, in Smith 1983. pp. 121-135).

Many of the events in the legend can be correlated with stories in the bible - a luminescent holy personage on a mountain (Matt. 17:2); a divine command to build a temple (Exod. 25:8); the sending of a messenger to persuade a doubter (Exod. 3:18-19); the invoking of tangible “signs” to convince a disbeliever (John 20:25-30) and so on.

There is some doubt about the authenticity of the legend; historian Jacques Lafaye (1976) suggests it was borrowed from an earlier Spanish legend in which the Virgin appeared to a shepherd and led him to discover a statue of her.

A second apparition resulted in a painted image, supposedly miraculous, that became known as the Virgin of Guadalupe. It is now housed in the New Basilica (the second), built on the site of an earlier church and finished in 1709, after the original became dangerous owing to the sinking of its foundations.

There is much to cast doubt on the authenticity of the legend. A detailed study of the portrait for example discloses a remarkable similarity to a Spanish painting by Bonanat Zaoritzta housed in the Museo do Arte de Cataluna in Barcelona, right down to “the brooch at the throat” (Callahan. 1981. p, 10). This painting precedes the Virgin of Guadalupe by nearly a century. Also the obvious elements of religious dogma in statements allegedly made by the apparition, and the similarity to the Spanish legend.

The “miracles” undoubtedly helped the propagation of Christianity (an estimated eight million Indian converts from 1532 to 1538 [Smith 1983, pp 10-11]),

one of the main purposes of Spanish imperialism. Given that Bishop Juan de Zumarraga was the chief organizer of the church in Mexico it would not be stretching the truth to suggest that the whole business was a pious fraud.

Lourdes

Would probably be the first name to spring to mind if you were asked to name a famous shrine. Situated southwest of Toulouse in southern France, it attracts some 3,000,000 pilgrims annually, among them 50,000 or so sick or disabled, seeking a miraculous cure.

It came to prominence in 1858, when Bernadette Soubirous, a deeply pious, poorly educated and asthmatic young girl of 14, the eldest child of a poverty stricken devout Catholic family, was out gathering firewood with her sisters on a cold winter’s day. She heard a noise like a gust of wind, looked up and saw a soft glow in the grotto in a cliff face. A figure in white materialized with a soft white veil falling each side of her face. Years later she wrote:

“I put my hand in my pocket, and I found my rosary there; I wanted to make the sign of the cross...I couldn’t raise my hand to my forehead. The Vision made the sign of the cross. Then I tried a second time and I could. As soon as I made the sign of the cross, the fearful shock I felt disappeared. I knelt down and said my rosary in the presence of the beautiful lady. The vision fingered the beads of her own rosary, but she did not move her lips. When I finished my rosary, she signed for me to approach but I did not dare. Then she disappeared.”

Oddly enough, this passage is tantamount to Bernadette confessing that she did not see what she claimed to have seen. The apparition, according to the girl, “*fingered the beads of her own rosary*”, yet the practice was not adopted until the 3rd century by Eastern Christian monks. Although the origin of the rosary of the Blessed Virgin Mary is not certain, it has been associated with St. Dominic, founder of the Dominican order in the early 13th century. It was not until 1520, however, that Pope Leo X gave the rosary official approval.

As the BVM predates the custom by centuries, what Bernadette saw, other than a possible combination of early morning mist, shadows and a shaft of sunlight, could hardly have been the apparition as described. In my opinion, for what it’s worth, we have a case of conditioned expectation - the subject perceives that which conforms to her own subjective experiences and associations.

Of course I could be wrong; maybe there is a supermarket in heaven where one can purchase accoutrements. After all, bible classes are available, as are language lessons, how else would the BVM be able to quote verbatim from the bible written years after her death and in every language and dialect to boot? However, I digress.

At first Bernadette was not believed, but after allegedly seeing the “white lady” thirteen times between February 18 and March 2, 1858, she told the parish priest that her white lady had instructed her to allow people to approach the grotto and that a chapel must be built there. (Familiar ring to the story?) The priest (as you may guess) demanded a miraculous sign before he would believe her. On Bernadette’s next visit to the grotto the BVM obliged by revealing that she was “The Immaculate Conception.” This was sufficient to convince the Church, and a newly discovered spring near the grotto, rumoured to have miraculous healing properties, became the destination of pilgrims from all over the world. Bernadette became a nun and died at the age of thirty-five in 1879. She was beatified in 1925 and canonized in 1933.

A medical team composed in the main of French Catholic doctors, the International Medical Committee (CMIL) at Lourdes, are cautious and painstaking in their investigation of alleged miracle cures, and as a consequence, only sixty-five cures have been accepted as miraculous by the Catholic Church out of the estimated two million sick pilgrims who have visited the shrine since 1858, hardly indicative of a statistical link between Lourdes and cures.

One of those not cured was Bernadette herself, an early victim of cholera, she suffered from asthma all her life and died of a tubercular knee.

Fátima

Situated in central Portugal, has since 1917 been one of the world’s great Marian shrines. Three Portuguese peasant children - Lucia dos Santos aged nine, and her cousins Francisco and Jacinta Marto aged six and eight were tending their sheep and, following a flash of lightning, reportedly saw a beautiful young girl who said that she had come from heaven and identified herself as the Lady of the Rosary.

The news of the vision spread and crowds of the faithful and curious accompanied the children whenever the vision visited them. On October 13, 1917 an estimated crowd of seventy thousand people gathered at Fátima and witnessed a “miraculous solar phenomenon”

in which the sun seemed to swivel and emit coloured rays, now referred to as the celebrated “Dance of the Sun”. This phenomenon has been repeated elsewhere in places such as Medjugorje and Agoa. (See my article “Travels of a Skeptic [V], *the Skeptic*, Vol 13, No 3).

As Damian has specifically queried this particular phenomenon I refer him to world-famous atheist and philosopher Professor FJ Ayer’s explanation, cited by John Cornwell in his book, *Powers of Darkness, Powers of Light*, (1991, p, 10). Asked whether it would satisfy Ayer’s criterion of evidence for the truth of a statement, that more than 100,000 people claimed to have seen the sun spinning and falling to earth, he replied, “No it would not, for the simple reason that the phenomenon was reported nowhere else in the world, so we must conclude that the sun stayed in its proper place and that 100,000 people were subject to some sort of mass hallucination”.

Continuing the story, the Lady is supposed to have entrusted the children, particularly Lucia, with secrets which were passed to the Vatican. Believed to be prophecies of apocalyptic disasters, the Pope is alleged to have collapsed with horror on reading them.

The first national pilgrimage to Fátima took place in 1927; the basilica was begun in 1928 and consecrated in 1953. Numerous cures have been reported although they seem not to have received the same publicity as those reputed to have occurred at Lourdes.

Fatima International puts out a monthly newsletter full of warnings about the approaching fulfilment of the Apocalyptic prophecies and the coming of the anti-christ who, it would appear, must be on the slow boat to China. St Louis de Montfort, promoter of devotion to the Blessed Virgin Mary, stated unequivocally that the world was moving remorselessly into that terrifying period of human history known as the “Reign of the Antichrist” - back in 1711!

Medjugorje

A small mountain parish in what was Yugoslavia, rose to world prominence in 1981 when the Blessed Virgin Mary is alleged to have appeared to six young people - Ivanka, Mirjana, Vicka, Ivan, Marija and Jakov and, like the children at Fátima, gave them “secrets” and countless messages. Among the messages (exactly what one would expect - straight from the pulpit) - Faith in God and in the supernatural; commitment to God; turn away from sin; repent; regular Mass, monthly confession, daily rosary and dedication to the Sacred Heart and the Immaculate Heart of Mary, and Fasting, - Bread and Water on Fridays. Nothing profound; just the usual

exhortations, a repetition of the same old traditional catholic dogma, and an urging to conform to established Church rituals.

To date there have been three investigative commissions into the events at Medjugorje and their communiques exhibit a cautionary quality. This has not deterred the hundreds of thousands who have now made it a place of pilgrimage and stories of miracles abound, none of which stand up to scientific scrutiny.

Commercialism was not slow off the mark, official tour guides now have to pass an exam set by the bishops, and a ninety page quarterly magazine, *The Medjugorje Sentinel*, keeps the faithful fully informed.

Other lesser known shrines where the BVM has allegedly appeared include Zeitoun in Cairo, where in 1968 Muslim workmen saw a vision over a Coptic Orthodox church, then, in April 1986, she reappeared over the church of St Demiana in Cairo. The worsening relations between the Coptic Christians and Muslim fundamentalists may have had something to do with it!

At La Salette, France, in 1846, two young children, Maximin Giraud aged eleven, and fifteen-year-old Melenia Calvat, were tending their cows when they saw "Our Lady" weeping in a dried-up river bed. There were the usual dismal prophecies and she entrusted them with "secrets", some of which were passed on to Pope Pius IX in 1850. It is not recorded whether he too collapsed in horror.

In 1888, thirteen year old Jean Bernard of Vallensages, near St Etienne, was collecting firewood when he had a vision of a gorgeously clothed "*grande dame*" wearing a golden crown on her head and standing with one foot on a lizard. She requested him to kill the lizard which he did, and she disappeared. The vision re-appeared six days later and, although accompanied by his parents, only Jean saw the lady. Convinced she was the Virgin, he asked her to cure his thirteen year old friend who had been deaf since birth. The girl began to hear, and news of the miracle spread.

Feeling the need to authenticate the vision's identity, Jean used the two traditional tests for apparitions. He said to the vision: "If you are the mother of the Lord, step forward. If you are the Devil, step back". No prize for guessing which way she stepped. He then threw holy water at her, but she merely smiled - a demon would have disappeared in a puff of smoke! Scientifically controlled tests such as these leave little room for doubt.

The vision appeared on twenty occasions, urging villagers to attend more masses and repent of their wicked ways.

On her final appearance, the vision was asked to create a sacred spring - the miracle failed to materialize, perhaps rosary beads are not suitable for dowsing purposes! Springs, incidentally are considered to be a standard folklore item.

A church at Knock in County Mayo, Ireland, became a shrine when a tableau of the Virgin, St John the Evangelist and St Joseph appeared on its gable end in 1879. While the flat two dimensional quality was suggestive of a lantern-slide projection, it didn't stop it from becoming a famous pilgrimage site; among its visitors Pope John Paul II.

In 1880, in the grounds of Llanthony Abbey, Wales, four boys aged between nine and fifteen saw the Virgin float through a bush. On another occasion, it appeared to four people who were singing *Ave Maria*. The surrounding mountains rumbled and were bathed in light. Above them they said, "a most Majestic Heavenly Form" appeared and glided into a nearby "Holy bush" (actually wild rhubarb). Subsequently there were reports of healing connected with leaves from the bush.

And even secular Australia is not totally immune from visitations and apparitions. In recent years, in NSW, Victoria and Queensland at least, various people have claimed to have seen visions of the BVM in assorted rural settings. Usually, the vision is associated with a tree or bush, the visionary is not Australian born, a small group of followers takes up the cause and there are reports of strange visions when people gaze at the sun (unsurprisingly). And, in secular Australia, the Catholic church is always reticent about acknowledging these events as being genuine religious experiences.

Well I don't know about you dear reader but my credulity has been stretched to the limit, so let's see if we can find some common factors from which to derive a conclusion.

First, the visionaries' perception of an apparition they believe to be that of the Virgin Mary always conforms to what the percipients expect to see, based on statues, paintings and other religious representations with which they are familiar.

No one living today has ever seen the original mother of Christ, nor is there any evidence of what she may have looked like. Of some things we can be sure, she never dressed in fine raiments, wore a crown, possessed rosary beads, read the bible, or was fluent in all languages and dialects, yet she is always portrayed as young, beautiful, radiant, bathed in light, splendidly garbed, conversant with the scriptures and is an accomplished linguist put into the bargain.

The Virgin's utterances follow the traditional and conventional teachings of the Catholic church, as do her directions in respect of its rituals. Like the emanations from contemporary channelled entities, profundity is conspicuous by its absence - revelations are simply re-statements. Her predictions, warnings, promises of salvation, threats of perdition and the need for unquestioning devotion, are all reiterations of those written in the scriptures; they are exactly what the pious would expect to hear from a divine messenger.

All the percipients or visionaries fall into roughly the same category ; they range in age from six to sixteen years, are peasants, shepherds or simple uneducated folk, devoutly religious, and have been thoroughly indoctrinated by the Catholic church into believing in miracles and the supernatural generally. Without exception they come from poor or deprived families, and it could be suggested that the conjuring up of the ultimate divine figure may comfort them and give them status in the eyes of others. Understandably, visions of the BVM rarely, if ever, appear to non-Catholics.

Young children have vivid imaginations, they fantasise, see what adults cannot, and love to tell secrets - all the attributes of a potential seer. Given the right environment, a religious background and a suitable motive and one is well on the way to hallucinating.

The supernatural is contradicted by everything we learn from our five senses and natural laws; to "see" and "hear" beyond those senses and laws is the result of a subjective state based on commonplace concepts.

Sources

- Burrus, Ernest J. 1979. *A Major Guadalupan Question Resolved*. Washington. D.C: CARA.
- Callero, Cleatas, trans. 1961, in Smith, pp. 121-135.
- Cornwell, John, 1991. *Powers of Darkness Powers of Light*. Viking. Penguin Group, London.
- Crees, Anthony, 1989. *Anatomy of Religion*. Freshet Press, Castlemaine.
- Encyclopaedia Britannica. 1992. Vol 5. p. 527c.
- Guiley, Rosemary Ellen, 1993. *Encyclopedia of Mystical & Paranormal Experience*. Diamond Books, London.
- Lafaye, Jacques, 1976. *Quezalcoatal and Guadalupe. 1531-1813: The Formation of Mexican National Consciousness*. University of Chicago Press. pp. 231-253
- Nickell J. & Fischer J.F. "The Image of Guadalupe: A Folklorist & Iconographic Investigation." *Skeptical Inquirer*. 9(3):244-255.
- Henderson, G. Gordon, 1979a. *Introduction to Burros*. p4.
- Smith, Judy Brant, 1983. *The Image of Guadalupe: Myth or Miracle*. Garden City. NY. Doubleday. ■

...Good Oil from p 12

more mundane.

As has been made clear in *the Skeptic* many times, the aims of Australian Sceptics do not include investigation of religious practices, unless claims are made which directly contradict well known and tested scientific principles. Miracles, of course, fall within this category and claims for healing miracles are among the most disturbing of such claims.

Which brings me to the subject of miracles as a phenomenon (or non-phenomenon). If we ignore the vernacular use of the term miracle, meaning something that is rare or unusual, and concentrate on miracle as meaning an event which cannot be explained, or indeed cannot happen, in terms of physical laws, then the concept poses a problem for me as a sceptic. Those who postulate miracles are generally those who also ascribe their cause to an omnipotent and omniscient supernatural deity. Given such a deity, one which makes miracles possible, then I submit that that fact makes miracles absolutely unnecessary. Indeed, the fact of a miracle would seem to me to be very good evidence that the deity was neither omnipotent nor omniscient, but merely a cosmic prestidigitator.

In the context of the present 'miracle' and others which have gained currency in recent years, such as weeping paintings, dancing statues and rosary beads that turn to gold, they all appear to be extremely banal demonstrations of the power of a putative supreme being. In this case, while the exudation of a vegetable oil by an animal specimen certainly appears to be miraculous, it also seems to be pointless. Or, as a woman who rang me after the *Hinch* appearance put it, "I would have expected more from God than something you can buy at Franklins for \$5.95 a bottle".

When taxed with these questions, my friends who adhere to such beliefs, claim that miracles are used as a conformation of faith, but this too is a most unsatisfactory answer. As I understand faith, it is a belief that is firmly held without any need of evidence or confirmation.

This has always appeared to me to be something approaching blasphemy when perpetrated by the creation 'science' sect. Surely, seeking scientific evidence to support one's faith indicates either that one's faith is very weak or that one doubts God's word.

Of course, I am not a theologian and have probably got this all wrong, but they seem like pretty fundamental questions to me. I would be interested to hear other people's views. ■

AUSTRALIAN UNIVERSITIES RESEARCH GRANTS SCHEME

Research Grant Application

The Physiological Basis of Parapsychology.

Dr Anthony G Wheeler

There is a commonly held belief in psychic powers (telepathy, telekinesis, extra-sensory perception, clairvoyance, etc.); a belief that has been increasing in the population in recent years (MacRobert, 1986).

Psychic powers have been seriously examined for many years by the members of the Society for Psychical Research in London (established 1882), the American Society for Psychical Research (established 1885), and in JB Rhine's laboratory at Duke University and later at his Institute of Parapsychology and Foundation for Research on the Nature of Man. Here in Australia, Murdoch University in WA, the University of New England in NSW and the University of Tasmania have all offered courses in parapsychology (Anon, 1983).

Parapsychological research is hampered by psychics being generally reluctant to participate in scientific investigations, taking the position that their powers have been conferred for their use for "good", and that the psychics are not necessarily interested in the mechanism of their powers. Nevertheless there have been some investigations (Soal & Goldney, 1943). Rewards have been repeatedly offered to attract more psychics to cooperate in establishing whether psychics have any non-normal powers. For many years US\$21,000 [Science and Invention magazine: \$1000; Dunninger: \$10,000; JF Rinn: \$10 000] was offered for any spirit manifestation that J Dunninger, a magician and exposé of fraudulent mediums, could not duplicate; no medium ever won the money. James Randi had a considerable sum on offer and widely publicised for many years with no winners; \$20,000 is currently on offer in Australia (Anon, 1986), and a total of \$240,000 in all countries (Anon, 1985).

Despite the problems of gaining the cooperation of psychically-active subjects, research has been conducted, and some scientists have been able to progress to defining the scope of the claimed psychic's powers (Targ & Puthoff, 1974). There have not yet been any investigations into the biological nature of psi.

Unfortunately all investigations to date have been unsuccessful: it has never been unequivocally demonstrated that "psychics" have any non-normal powers (Scott & Haskell, 1973; Hanlon, 1974; Diaconis, 1978). Nevertheless scientists regard the investigation of ESP to be "a legitimate scientific undertaking" (88%

of 1252 respondents to one survey; Evans, 1973). And indeed, despite the lack of accepted evidence, belief in the paranormal attributes of psychics by college students and adults is increasing (MacRobert, 1986). This growing belief in parapsychology is reflected in the 1950 meeting of the Royal Institution on this subject, and again in a Ciba Foundation Symposium in 1955, and the Parapsychological Association being granted affiliated status to the American Association for the Advancement of Science (AAAS) in 1969, and the establishment of the Koestler Chair of Parapsychology in the Psychology Department at the University of Edinburgh (Morris, 1985).

This increasing acceptance of parapsychology can be reconciled with the lack of experimental evidence for psychic influences by the "Shyness Effect" (Gardner, 1976 & 1981): the greater the reduction and loss in psychic powers the more closely and objectively they are examined. Consequently while the mass of anecdotal, uncontrolled observations is sufficient to recruit "believers", the close examination of psychic powers in the laboratory is unable to verify their existence.

Consequently we shall study psi from the other direction (70% of *New Scientist* readers felt that parapsychologists were investigating their subject the wrong way). Instead of looking at the psychic abilities, the anatomy and physiology of psychics and non-psychics will be compared. Physiological effects of psychic activity have been demonstrated: finger vasoconstriction during telepathy (Dean, 1966) and a telepathic influence on EEG recordings (Targ & Puthoff, 1974). It seems that in some people, psychic powers are better developed than in others. Accordingly we would expect that the organs involved in the transmission and reception of telepathic communications, tapping into the cosmic consciousness to predict the probable future (clairvoyance), sensing the non-physical vibrations of a person and his favoured objects (psychometry), directing the ethereal flow so as to produce movement in physical objects (telekinesis), etc, will be better developed in active psychics than in non-psychics. Although the lack of any such identified anatomical structure associated with psychic transmission between minds, and between

mind and matter, has been cited as indicative of the non-existence of psi (CD Broad; quoted by Price, 1955), this criticism has been dismissed on the basis that "other known functions" are also not associated with identified anatomical structures (Meehl & Scriven, 1956) (though what these known functions are was not specified). The "interlocking, integrating and ever-changing pattern of activity formed by the multiple (ten thousand million-fold) detectors that exist in the [cerebral] cortex" has been proposed as the link between mind and matter (Eccles, 1951). The first stage is to identify which organs, presumably parts of the central nervous system, mediate psychic powers.

A retrospective survey will be conducted. Known psychics will be traced, and where deceased their autopsy findings will be examined. (Permission to exhume remains will be sought where sufficiently interesting and an autopsy had not been performed.) A non-psychic control group will be compiled from road traffic accident victims (anyone dying in these circumstances obviously could not have had much psychic [clairvoyant or telekinetic] competence.) The post-mortem findings will be compared by a panel of experienced pathologists to identify common differences. (Do psychics have larger, better-developed pineal glands? The pineal is the mystics' 'third eye'.)

Volunteers will be screened for basic psychic attributes (Zenner card tests, random number prediction, etc). Those individuals scoring higher or lower than chance (negative psi is not uncommon when results are analysed retrospectively) will be compared with those that are undistinguished (control) in medical physical, neurological and biochemical investigations. Where suggested CAT (computerized axial tomography) brain scans will be produced. Brain biopsy from accomplished psychics for neuroanatomical and biochemical studies is a possibility for the future (provided of course that we can be assured that the removal of part of their brain would not interfere with the mental functions).

The descendants of the survivors of the sunken island-continent of Lemuria are described as living in a closed community on Mount Shasta in California. WS Cerve describes their telepathic organ protruding to produce an obvious bump in the middle of the their foreheads (de Camp, 1954). The phrenology of residents of California will be compared with matched controls from Michigan (far from the coast, and unlikely to be populated by survivors from Lemuria).

Note: Security implications... this proposal is terminated.

Explanation:

The further details of this research programme have

not been mentally conceived. Although it is recognised that it will make this research proposal difficult to assess, this is important due to the security implications. Any progress in parapsychology will obviously be of enormous benefit to the Australian Defence Force (not to mention ASIO, police and other security and crime prevention services). Just imagine the awesome power Australia would wield if it alone were able to win wars before the enemy had even declared them (using clairvoyance), without even sending any troops from our shores (by using telekinesis to turn the enemy's weapons upon themselves). Hence the secret nature of this work, indeed even if our scientists were to conceive these details then foreign telepaths would know of our intentions. Accordingly, this work will have to proceed without anyone knowing that they are engaged upon this task.

Perhaps the researchers are among you now, observing psychic abilities, storing information, identifying possible subjects for later post-mortem examination, copying records of medical examinations, even kidnapping live subjects where necessary. Fears that this research will be exposed by the decrease in psychic abilities in the community, as adepts are appropriated, are unrealistic; frauds will be substituted with no one any the wiser. Kidnapping will be explained as alien abductions. All will proceed without alarm to the parapsychological community.

The cover name for this operation, to cover the public aspects of the investigation, will be "T.e .ust...ian .k.pt.cs".

References

- Anonymous (1983) Tertiary paranormal courses. *the Skeptic* 3(1),6.
 Anonymous (1985) Offers for proof of paranormal now total \$240,000! *the Skeptic* 5(4), 20.
 Anonymous (1986) Skeptics in reward bid. *Daily Sun* (Brisbane), 25 March 1986, p 7.
 de Camp, LS. (1954) *Lost Continents*, Dover (New York), page 72.
 Dean, ED. (1966) Plethysmograph recordings as ESP responses. *International Journal of Neuropsychiatry*, 2, 439-446.
 Diaconis, P. (1978) statistical problems in ESP research. *Science* 201, 131-136.
 Eccles, JC. (1951) Hypotheses relating to the brain-mind problem. *Nature* 168, 53-57.0
 Evans, C. (1973) Parapsychology - what the questionnaire revealed. *New Scientist* 57, 209.
 Gardner, M. (1976) Magic and parapsychics. *Technology Review*, June 1976, pp 43-51.
 Gardner, M. (1981) *Science: Good, Bad and Bogus*. Prometheus (New York), page 93.
 Hanlon J. (1974) Uri Geller and science : The New Scientist investigation and The Stanford Research Institute investigation. *New Scientist* 64, 170-185.
 MacRobert, AM. (1986) Reality shopping: a consumer's guide to new age hokum. *Whole Earth Review* 52, 5-14.
 Meehl, PE. & Scriven, M. (1956) Compatibility of science and ESP. *Science* 123, 14-15.
 Morris, R. (1985) What I shall do with the Koestler Chair. *New Scientist* 108, 59.
 Price, GR. (1955) Science and the supernatural. *Science* 122, 359-367. Scott, C. & Haskell, P. (1973) "Normal" explanation of the Soal-Goldney experiments in extrasensory perception. *Nature* 245, 52-54.
 Soal, SG. & Goldney, KM. (1942-45) Proceedings of the Society for Psychical Research 47, 21-150.
 Targ, R. & Puthoff, H. (1974) Information transmission under conditions of sensory shielding. *Nature* 251, 602-607.

REVIEW

Post-modernism in pseudoscience:

a creationist's deconstruction of Gish

Colin Groves

Bones of Contention: a Creationist Assessment of Human Fossils, Marvin L. Lubenow. Baker Book House. Grand Rapids MI. ISBN 0-8010-5677-2. Obtainable for \$18 from Creation Research Centre, PO Box 260, Capalaba Qld., 4157.

Creationists are bound to fare rather poorly on human evolution. The fossils form such a neatly graded series, getting less and less ape-like and more and more human as they get closer in time to the present, that the most earnest creationist can do little more than muddy the waters by inflating and distorting the existence of points of disagreement between specialists, or trying to revive long since discredited *Homo sapiens* specimens once claimed to have been from extremely ancient deposits.

To my knowledge, only two have, up to now, tried to demolish the idea of human evolution in any depth (for want of a more accurate phrase): Duane Gish and Malcolm Bowden. Bowden (who appears in the flesh in one of the *Origins* films) has at least done some original research on Piltdown, and tried, if not very convincingly, to think up reasons why this or that key fossil is not what it seems. Somehow, creationists seem not to take much notice of Bowden; Gish is the inevitable source. Gish has such a way with the evidence, after all. Australia's home-grown creationists try their best, but no-one can quote a scientist's words out of context quite the way Gish can; no-one can quite so brazenly cite a twenty-year-old source as if it were bang up-to-date; no-one can use the Abracadabra effect with quite such panache; no-one can so authoritatively present black as white, white as black. No, Gish is the master, the source.

Until now. Until Marvin L. Lubenow. Creationists are going to sit up and take notice of this one. First of all, he will get read and widely cited - he has not made Bowden's mistake of not being American. Second of all, he actually has read much of the original literature on human evolution (even if he has not quite understood it all). Above all, he does not try to conceal the fact that human fossils are abundant, in fact he stresses it: by his "conservative estimate" more than 6,000 fossil proto-

human individuals have been discovered up to now (p 32). This is a good start; one plunges into the body of the book with spirits soaring, anticipating an intellectual cut-and-thrust. One is disappointed.

On pp 46-7 Lubenow tries to explain evolutionary theory. He recounts what he sees as the differences between evolutionary gradualism and punctuated equilibria, though not in any depth; nor does he mention the adaptationist/neutralist controversies, instead assuming that everyone accepts the strict Darwinian model. His chain of oversimplifications leads him into a glaring *non-sequitur*: "It is thus basic to evolution that if species B evolved from species A, that species A and species B cannot coexist for an extended length of time". Ungrammatical, and inaccurate; yet time and again throughout the book he appeals to this supposed corollary of evolution to argue that, because there is coexistence between a supposed ancestral species and *Homo sapiens*, the relationship cannot actually be ancestor-descendant.

So reliant is he on this misunderstanding as a potent dragon-killer, that he drags out one dragon after another to be slain by it. The date of the famous Taung Child, the earliest discovered specimen of *Australopithecus africanus*, is believed by some specialists to be only some 0.75 million years old; other specialists disagree, but Lubenow insists on his 0.75 because that makes it later in time than its putative descendants in the genus *Homo*, therefore it can't be their ancestor. The Kanapoi Elbow, dated at 4.5 million, is "fully human", so all these australopithecines and whatnot cannot be ancestral to us because a modern human was already in existence; his thorough - or, let us say, thoroughly selective - combing of the literature has overlooked a paper by Marc R. Feldsman (1982, *American Journal of Physical Anthropology*, 59:73-95) which finds that Kanapoi is very far from being modern human. He several times tabulates dates for *Homo erectus* and *Homo sapiens*, to show that they overlap widely in time, therefore the former cannot be ancestral to the latter.

This last point is obviously his *pièce de résistance*, and he returns to it again and again. Where a particular

fossil is in dispute, he accepts whichever interpretation of it will suit his theme (he accuses “evolutionists” of doing this often enough, but seems quite unaware that he is doing it himself). Middle Pleistocene African and European fossils such as Petralona, Mauer, Nduetu, Vertesszöllös, Arago, Bodo, Saldanha and Kabwe are classified as *Homo sapiens* by some authorities and as *Homo erectus* by others, but they are early in time (some hundreds of thousands of years old), so Lubenow accepts the *Homo sapiens* designations. A variety of Late Pleistocene Australian fossils, such as those from Kow Swamp, have been said to be *Homo sapiens* but retaining certain *Homo erectus*-like features, which Lubenow distorts by saying that they are fully *Homo erectus*. Bingo! By semantic sleight-of-hand *Homo erectus* and *Homo sapiens* become contemporaries over 700,000 years.

The fact is that one school of thought (“Regional Continuity”) believes that all Middle Pleistocene *Homo* were really a genetic continuum, ancestral as a whole to modern humans; another (“Replacement”)

believes that only the African ones were our ancestors, and the others more or less died out, replaced by the newcomers from Africa. If you adhere to the first school, it is clearly quite arbitrary where you draw the line between *Homo erectus* and *H sapiens*, or you may care to do away with erectus altogether and call the lot sapiens (with more archaic, less archaic, hardly-archaic-at-all and state-of-the-art-modern grades, as many as you think adequately characterise the evolving continuum). If you are a Replacementist, like me, you will restrict the concept “archaic *Homo sapiens*”, or whatever you want to call it, to the ones that are very likely our ancestors, and the others (the Chinese and Indonesian fossils, mainly) will be a separate clade, *Homo erectus*. All this business of taxonomy and nomenclature, clades and grades, Continuity and Replacement, is probably a bit

too much like science for any creationist, for whom a rose by any other name would not smell sweet at all.

There is little actual description of anatomy in this (or any other) creationist writing. Actually, this is just as well considering the games Lubenow plays with cranial capacity (more or less equals brain size). “The human brain varies in size from about 700cc to about 2000cc” he says on p 83 [therefore a fossil with a capacity of only 700cc is a perfectly normal human, see?], figures he ascribes to Stephen Molnar (1975, *Races, Types and Ethnic Groups*). Molnar actually hedged his figures about with qualifications, e.g. “there are many such persons [i.e. intellectually normal] with 700 to 800cc capacities”

(2nd ed, p 10). Any reader of Molnar’s book who has a modicum of biological training will know about normal curves - the probability of occurrence of a given figure, be it human stature, brain size or anything else - diminishes steeply the further it is from the mean value. The probability of occurrence of a 700cc cranial capacity in a modern person must be rather tiny, given that mean capacity for the

	Gish, 1985	Lubenow, 1992
<i>Homo habilis</i>	all are apes (p.168)	some human, some not (p.165)
Skull ER 1470	“may not have been human-like at all” (p.168)	“true human status” (p.162)
Locomotion of australopithecines	probably more like oranges (p.179)	different from any other primate (p.168)
Javanese <i>Homo erectus</i>	An ape “possessing no genetic relationship to Man whatsoever” (p.184)	“a true member of the human family, a post-Flood descendant of Adam” (p.87)
Zhoukoudian (“Peking Man” site): Identity of the <i>H.erectus</i> fossils	Monkeys: macaques or baboons (p.199)	<i>Homo sapiens</i> (p.136)
The site	“little evidence that a cave existed” (p.197)	No apparent dispute that it was a cave (p.30)
All that remains of original fossils	“Models” (p.195)	Casts of “excellent quality” (p.16)

Two competing creationist views of the human fossil record

species as whole is about 1450cc.

Perhaps we can calculate just how tiny. Mean cranial capacities vary from one human population to another, dependant on such things as body size and, curiously, climate. The smallest mean cranial capacity I know of is for a sample of 15 South African “Bushmen”, recorded by Slome in 1929 (see JA Keen, 1952, *Ann S Afr Mus* 37:211-226). They had a mean of 1159cc, with a standard deviation of 118.93. Now, our statistical books tell us that one standard deviation on either side of the mean includes 68.26% of the population, two standard deviations include 95.46%, three include 99.73%, four include 99.99366%... Now, 700cc is very nearly 4 standard deviations away from the Bushmen’s mean of 1159. One individual in 30,000 will be, statistically, beyond (below or above) the 4 standard deviation limits,

i.e. one in 60,000 will be below. In the *Homo sapiens* population with the smallest reported cranial capacity, about one person in 60,000 can be expected to have a brain size (*sensu* Lubenow) of as little as 700cc. You can perform a similar calculation to find out what proportion will have a size of 800cc, and so on. The chances of finding even one such individual as a fossil is remote. It is far, far more probable that the various fossil *Homo* that have cranial capacities of this general size were normal-ish representatives of small-brained populations.

The rest of the complex anatomical changes that are observable in human evolution are subsumed under one heading: pathology. Rudolf Virchow in 1872 argued that the bones from Neandertal were those of a normal human being, deformed by rickets; the idea was revived by Francis Ivanhoe in 1970. It has not received wide support, mainly because the skeletons of people who suffered from rickets, even very severe rickets, simply do not resemble those of Neandertalers. Gloriously ignorant of this simple fact, and relying entirely on the authority of Virchow and Ivanhoe (which by p.156 has become a "large body of evidence"), Lubenow goes right ahead and proposes that not only Neandertalers but even *Homo erectus* were modern human beings deformed by rickets! The one case where a nongenetic factor (artificial cranial deformation) has indeed been plausibly argued to be responsible for a superficially archaic skull appearance (Kow Swamp and some other Australian fossils) he dubs "contrived" (p 155). Of course he would; he needs Kow Swamp to be a late-occurring *Homo erectus* (in order to prove that *erectus* was not earlier than sapiens, and indeed has already misquoted their describer, Alan Thorne, to that effect.

And so it goes on. *Homo habilis* is argued out of existence altogether; the famous East African skull, ER 1470 (which some, but nowadays by no means all, authorities class with *Homo habilis*) somehow becomes a modern human representative. Australopithecines are, of course, dismissed on the evidence of Charles Oxnard (a noted Western Australian anatomist, who in fact is the first to admit that his view of this series of fossils is uniquely his own). We have the obligatory tale of those early failures of potassium-argon dating - as if the errors made by the early practitioners of any method somehow invalidate the whole enterprise. And not just the evolution of our species - in Chapter 18, even the Big Bang gets a serve. (Perhaps a cosmologist would like to comment on his treatment of this theme: unlike Lubenow, I would hesitate to step into an unfamiliar field). And in Chapter 19, there he is rewriting the history of ancient

civilisation. As for Chapter 20, "Adam and the Evangelical" - well, I do enjoy reading fantasy, and here is a world every bit as self-contained, internally consistent and unrelated to reality as Terry Pratchett's *Discworld* or Douglas Adams' *Long Dark Teatime of the Soul*.

Maybe my readers are getting restless by this point. "Where is Duane Gish?" I hear them cry. Well, he is there, on page 9: "John Whitcomb and Duane Gish read the manuscript and offered valuable comments". He is mentioned just twice more in the entire book, as having held debates with "evolutionists". Not, ever, as an authority. In fact, if you remember your Gish as you read Lubenow, you begin to get the feeling that Lubenow has a rather low regard for Gish. Both creationists they may be, but their interpretations of palaeontology are diametrically opposed.

I have listed the more striking differences in the Table. Gish, for a start (as in Chapter VI of *Evolution: the Challenge of the Fossil Record*), downgrades the fossil evidence; he never says exactly how many specimens were discovered of a given fossil type, but by his use of antiquated terms like "Java Man" and "Peking Man" he is clearly inviting the reader to assume that there is just one, or not many. Lubenow, as we have seen, stresses the very large numbers of specimens. Gish says that all the "Peking Man" specimens were lost during the war, and the only evidence of them that we now have are some models; Lubenow agrees that these "models" are actually high-quality casts, and that some further fragments have been discovered. But the most striking difference is that, for Gish, skull ER-1470 and the *Homo erectus* fossils are apes or monkeys; for Lubenow, they are fully and completely human.

I find it rather easy to distinguish a modern human skull from that of an ape or monkey. It is not something with which, in my experience, university or even school students have much difficulty either. Yet Gish and Lubenow cannot agree which is which. If one is right, the other is hopelessly incompetent. If Lubenow is right, Gish should be withdrawn from the debating circuit right away, for he is a liability to the creationist cause. If Gish is right, the Institute for Creation Research ought to recall all copies of Lubenow's book, and pulp them, for they are going to mislead the troops. Either way, any intelligent creationist (sorry, oxymoron there) is going to get mightily confused and, heaven forbid, the following thought may flit across their minds:

"If two eminent authorities cannot agree whether these skulls are human or ape, does this not imply that they are, um, intermediate?" ■

NEWS

Meeting Yesterday's Superstar

Barry Williams

I am sure that the average reader of *the Skeptic* has no idea of the lengths to which the hard-nosed investigative journalists on the editorial staff go to bring them all the news stories that appear in these pages. Take the recent visit to Australia of former 'psychic superstar', Mr Uri Geller.

We first became aware of Mr Geller's impending visit through an advertisement in a local newspaper and had to decide whether this visit was worth a major challenge through the media. Our decision was to wait and see if Geller's former fame had retained sufficient drawing power to enable him to receive massive amounts of free publicity or whether, as we suspected, he was very much yesterday's news. In the event, this proved to be a sensible conclusion.

Geller was advertised as appearing at a series of psychic events in Sydney, the Gold Coast, Brisbane and Melbourne over a three week period in October [1993]. These events were organised by Gary Wiseman Promotions and sponsored by *New Idea* magazine (predictably), the Psychic Hotline (organised by the Australian Psychics Association), radio station 2KY (owned by the NSW Labour Council) and (wait for it taxpayers) Qantas.

Members of Australian Skeptics who attended two performances in Sydney reported that the audiences numbered at between 2-300 people. This must surely have been a considerable come-down for Mr Geller, who had substantially filled the Sydney Town Hall on his previous visit some 17 years ago. We have no reports how the Queensland leg of his visit went, but we have not heard of riots in the streets from disappointed clients who could not get tickets. So far, Mr Geller had received very little publicity, appearing on a couple of TV programmes and radio talk back sessions. The instructive thing about these appearances was that Geller was treated as an amusing curiosity, as is the way of such programmes, and not as someone who has anything serious to say about the state of the world.

Then there occurred a curious episode in which I met Uri Geller for the first time. He, accompanied by two other individuals (about whom, more elsewhere in this issue), was waiting in the American Consulate General

in Sydney to conduct some business, when I, advised of his presence by a friend in the office, walked in to observe him at close quarters.

Alerted to my presence, he strode across the room, hand outstretched, and loudly and volubly proclaimed that he was going to sue the Skeptics and that he had just been to see "Australia's largest law firm". Taking and shaking the proffered hand, I enquired mildly why he was undertaking this extraordinary step. "Because they have been defaming me", he said. In response, I pointed out that, as I am the member of Australian Skeptics who is responsible for defaming people and as, far from defaming him, I had totally ignored him, he would have rather an onerous task in proving his case. Mr Geller then made the astonishing statement that he was 'not a litigious person', but that he had been forced to defend his integrity from personal slurs that had been cast against him, going on to give a highly biased account of various court cases in which he had been involved. Keeping my own counsel, I forbore to ask if he had paid the \$US150,00 that a US Federal Court judge had awarded CSICOP for a failed suit he had instituted against them.

During this conversation, I gained the clear impression that Mr Geller was trying to intimidate me and I suspect that my amused and off-handed disputation of his claims nonplused him more than somewhat. I was aware that our Victorian branch, having compiled a list of claims Mr Geller had made publicly, had sent a list of questions to various media outlets, suggesting that they pose some of these questions to Mr Geller in any interview. These questions, while they may not have pleased Mr Geller, were in no way defamatory, so I felt I was on safe ground in arguing with him and I was confident that any law suit he instituted against Australian Skeptics would receive short shrift in any Australian court. Needless to say, in the several weeks which have passed since this encounter, we have received no communication from any Australian law firm, regardless of size, on Mr Geller's behalf.

Changing tack, Mr Geller opined that the attacks made on him by various sceptics around the world may have been caused by an underlying anti-semitism. At this

astounding claim, I am afraid that my naturally polite demeanour deserted me. I laughed in his face, pointing out that any perusal of a list of members of sceptics organisation would show that those whose names proclaimed a Jewish heritage would reveal that they comprised a considerably higher number than the Jewish percentage of the population at large would warrant.

During our conversation, Geller kept informing me that he was 'rich and famous' and didn't need to do what he was doing. I am in no position to judge the state of his wealth, but I can say that he is by no means as famous as he would like to believe. During the weeks before his arrival, I mentioned his visit to many different people. By far the majority said "Uri who?" and only some of those were enlightened when I further identified him as "the spoon bender".

My impressions of Mr Geller are in accord with those of others who describe him as 'intense', but even more than that, I found him to be incredibly tense, a strange condition for one who was giving lectures on how to use psychic powers to solve personal problems.

We concluded our conversation on a friendlier note and that may well have been the end of the affair except for a curious footnote. The following evening, I was called by Mark Plummer from Melbourne, who advised me to ring a Melbourne phone number for details of the Psychic Expo at which Geller was to be the star attraction. On calling the number, I was advised by an answering machine that "Due to the illness of a family member, Mr Geller has been forced to withdraw from the Expo and, as a result, the organisers have been forced to abandon the Expo. There is no plan to re-schedule the expo." If any member of Mr Geller's family is indeed ill, then he has our sympathy, as do those whose grasp on reality is so nebulous that they expended \$20 to have their problems solved by someone whose major contribution to the world is the trick of bending cutlery.

There is a precedent for the abandonment through illness of a tour by a prominent proponent of mystical forces. A couple of years ago, Erich von Daniken cancelled a tour of Australian capitals after disappointing attendances at meetings in Perth and Adelaide, citing ill health as the reason. Perhaps there is some malign energy abroad in Australia that causes ill health in those near to fading psychic superstars in the twilight of their careers and I offer this thought gratis to anyone seeking a topic for a PhD thesis. Only a cynic would hold the view that poor attendances at meetings and the loss of revenue entailed would have anything to do with it. ■

“G” Whizz

Barry Williams

In a curious post script to the preceding story, a couple of weeks after Geller and his associates had departed our shores, I was alerted to a message which had appeared in the Internet computer news group, "sci.skeptic" in which my name was mentioned. The message came from someone who styled himself "Riley G, International Psychic Detective" and he mentioned meeting me while in Australia where he had been investigating a serial killer. He also claimed that he had received "major media coverage" (I suggested the *Chicken Breeders Gazette*), and that within a few weeks, "downunder septsics" (psychics are renowned for their Wildean wit) would "blow their stacks" over some information he would reveal.

I had never heard of Riley G, although I was introduced to someone when I met Geller. As I didn't understand a word he said, I paid him little attention. He claims that he is a former New York policeman who uses psychic means to solve crimes. By the tone of some other messages on the news group, his claims are treated with more than a little scepticism by other Americans.

As for Mr G's investigation of the horrifying "Backpacker" murders, news reports have stated that the police had received thousands of calls from the public, "including psychics" about the matter. I spoke to a police contact and asked him what he knew of Riley G and the response was transmitted over the news group. "What's Riley G? Some kind of Irish breakfast cereal?"

This must have stung Mr G, although it seemed to delight his critics, because he responded with a personal attack on me, including the fact that I had "rushed up stairs" to meet Geller and him. That certainly would have been a paranormal event as about the best speed my arthritic knees allow is a sort of brisk amble (and that on the flat).

Mr G also claims that he has been invited to return to Australia soon (although he neglected to mention by whom) and predicted that the Skeptics would fax all the news outlets to prevent him from receiving publicity. Presumably this will also be the psychic's party line to account for the failure of the Geller tour, but the fact is that we do not waste our time on non-events.

We welcome Mr G's return for, as I advised him, Australians love a good joke. ■

REVIEW

Open Minds Rule, OK

John Snowden

In Defence of Open-mindedness

William Hare

McGill-Queen's University Press, 1985

William Hare is a North American philosopher with an unusual specialisation: the concept of open-mindedness.

I spotted Hare's book in the McGill-Queen's catalogue a few years ago when I was going through a Canadian phase. Hare defines the open-minded person as one who is able and willing to form an opinion, or revise it, in the light of arguments and evidence.

Open-mindedness is an attitude that strikes at the heart of prejudice. There is nothing wrong with that definition, but you can broaden the concept into psychology. Consider, for example, the following ideas taken from Rokeach (discussed below). We all rely on authority for information in our beliefs but the open mind typically weighs authority for cognitive correctness, such as consistency with what one already knows.

In contrast the closed mind tends to see such authority in terms of its power to punish and reward and is less concerned with its cognitive correctness. This relationship can become a nightmare of unreason (Jonestown). Also the open mind readily distinguishes between the believer and the belief but the closed mind has difficulty in distinguishing between the two. For it, 'bad' beliefs mean 'bad' people. Think of the McCarthy era.

The closed mind tends to rely on its group authorities for information about other belief systems instead of checking at the source. Think of a creationist learning about evolution from Gish and never from evolutionists such as Simpson, Mayr or Gould.

Hare follows the concept over a literature ranging from education theory to Thomas Kuhn's philosophy of science. He analyses confusions, clarifies the concept and argues the point against those who oppose teaching the value. I must admit that before reading this book I did not know that there are educationists who oppose teaching open-mindedness. But of course there are. The Church, for example, does not push this particular value. Examples of confusion are: tolerance seen as open-mindedness, scepticism seen as open-mindedness, the claim that open-mindedness leads to nihilism, and that commitment to a theory is close-minded. Hare omits any psychology of his subject because his small book is a philosophical defence.

I must mention, in addition, Milton Rokeach's important book *The Open and Closed Mind* especially for readers who have no time for abstract philosophical works, even ones as good as Hare's. Rokeach and his collaborators who used psychometric tests to probe closed and open-mindedness in relation to personality traits e.g. authoritarianism, paranoia, rigidity, religiosity. Their 1950s research may be dated but the book is still worth a look. Likewise Rokeach's *The Three Christs of Ypsilanti*, a study of the psychotically closed mind, is a good read. I am not suggesting that Hare's concept is identical to Rokeach's. Our author is defending a desirable attitude, a normative concept, whereas the psychologists are probing underneath.

Hare does not refer extensively to the critical thinking movement, a vehicle for open-mindedness which was under way when he was writing. There is, incidentally, now a Center for Critical Thinking and Moral Critique at Sonoma State University, California.

One of the objections to open-mindedness is that it is an unattainable ideal, approached only imperfectly. Hare has his answer to this but I think it is an empirical-practical question: what conditions bring about open-mindedness and how readily can it be taught and to whom? He devotes a whole chapter to open-mindedness in science and targets Kuhn for his treatment of commitment to established theory as a form of closed-mindedness and dogmatism. This would interest sceptics because one of the charges levelled against science by believers in the paranormal is that sceptical scientists are close-minded in their attitudes to paranormal phenomena.

I think it pays to watch the usage of the words 'open-minded' and 'closed-minded'. The latter turns up manipulatively in *ad hominem* type accusations, and the claim to be open-minded can be insincere. See, for example, Alan Cromer's essay in *Skeptical Inquirer*, 17 (4) where he describes a scientist's attitude to the Fleischmann-Pons cold fusion fantasy: "I am willing to be open-minded, but it's really inconceivable that there is anything there".

Hare's style is plain, honest and respectful, and is free of turgidity and humbug that crops up in philosophy. In our last issue two authors touched on the topic. I think most sceptics would value open-mindedness. We should not have unexamined values and I think Hare has something to offer on that point. ■

REVIEW

Suckers, Scientists, Sceptics

Noel Bryning

The Mind of God

Paul Davies. Penguin Books, 1992

'There's a sucker born every minute', said Phineas T. Barnum of The Greatest Show on Earth. Very true. I was sucking up to mother from my first day to her last, when she asked me to hold her hand as she closed her eyes to sleep the long sleep. But aren't we all suckers in some such way? We tend to suck up to our peers and protectors - our heroes - our father and mother figures in religion, education - models to follow. We learn to go with the strength, to join the mob, to take up the latest fashion or trend. We must be in it to win it or be damned.

So I must have sucked up my sceptical bias with my mother's milk. Both she and my father were agnostic in thought - radical in philosophy and politics. Thus it was natural for me to take notice of the words of 'acclaimed physicist', Paul Davies, in his surprise ending to a fine radio interview, his first of several in recent years.

After expanding on the forces of nature within the cosmos, Davies concluded with his belief that there must be 'something more out there'. He was talking about his book, *God and the New Physics*, his 'first attempt to grapple with this clash of ideologies'. I remember noting that most of his science colleagues would be unlikely to approve of the mystical implications. Since then, however, in his preface to *The Mind of God* [p15 Penguin 1992], he states "Many practising scientists are also religious. ...I was astonished to discover how many of my close ...colleagues practise a conventional religion. In some cases they manage to keep these two aspects of their lives separate, as if science rules six days a week and religion on Sunday. A few scientists, however, make strenuous and sincere efforts to bring their science and their religion into harmony. ...this entails ...a very liberal view of religion ...and on the other hand of imbuing the world of physical phenomena with a significance that many of their fellow scientists find unappealing."

He claims that others "confess to a vague feeling that there is 'something' beyond the surface reality of daily experience, some meaning behind existence. Even hard-nosed atheists frequently have ...a reverence for nature,... for its depth and beauty and subtlety,... akin to religious

awe. ...There is no greater misconception about scientists than the widespread belief that they are cold, hard, soulless individuals."

While stating that he belongs to the group of scientists, not religious but who "deny that the universe is a purposeless accident", Paul Davies goes on to state his credo in a way that amounts to teleology of a most unscientific kind. [p16 *ibid*] "Through my scientific work I have come to believe ...that the physical universe is put together (sic) with an ingenuity so astonishing that I cannot accept it merely as a brute fact. There must ...be a deeper level ...Whether one wishes to call that deeper level 'God' is a matter of taste and definition." He concludes with "the point of view that mind" ... "is an absolutely fundamental facet of reality. That is not to say that we are the purpose for which the universe exists. ...I do, ...believe that we ...are built (sic) into the scheme of things in a very basic way."

In referring to his use of the pronoun 'he' in discussing God, he writes (p17 *ibid*), "This should not be taken to imply that I believe in a masculine God, or even in the notion of God in any simple sense." Thus we are prepared for nine chapters of learned, if involuted discussion, 'aimed at the general reader'. Chapters include [1] Reason and Belief [3] What are the Laws of Nature? [4] Mathematics and Reality [6] The Mathematical Secret [8] Designer Universe [9] The Mystery at the End of the Universe.

Under the last heading (ch 9 p 223) Fred Hoyle is quoted: "I have always thought it curious that, while most scientists claim to eschew religion, it actually dominates their thoughts more than it does the clergy." What is more than curious is that scientists have not devoted more time to the philosophy of this problem. Paul Davies points to the importance of mind in 'the scheme of things' but even in writing those words he had to say "built into the scheme ..." (p16) as though some supreme intelligence had ordained it.

But he might mean, if he could clear his thoughts, that a combination of cosmic forces had done the building, whether by design or a set of accidents. He seems to prefer design. Why not dialogue? A clash of forces resulting in synthesis? A dialectical process? He

would not be alone. Albert Einstein wrote in *The World as I See It*: “I maintain that cosmic religious feeling is the strongest and noblest incitement to scientific research”. “The great mathematician and philosopher Bertrand Russell” (Davies p101) who called himself agnostic but spoke of God freely enough in his youth was objectively scientific about it later, it seems. In a letter to his publisher, W Norton, he wrote: “I have already done a chapter on ‘Science and Religion’, which is explicitly atheistical. Do you object to this? It would ...be possible to give the whole thing an ironical twist and this might ...make it better literature”. [p441 *The Autobiography of Bertrand Russell* /Unwin Books] (Publishers are often the voice of public opinion.)

It is not so surprising that philosophers are on familiar terms with God. In Russell’s *History of Western Philosophy* he shows the confusion of a long line of dialectic argument based on religious beliefs heavily subsidised by established church and supported by law and public opinion. God was seen as basic and had to be. Copernicus, Galileo, Servetus and others showed this. The eighteenth century brought a turning point. In 1735 Bishop Berkeley was published “in an argument meant to show that the higher mathematics involve assumptions ...which equally with (the mysteries of religion) illustrate the spiritual fact that the ultimate ...conceptions of an intelligence like ours must be only half-conceived truths”. Hume, Reid, Locke and later, Kant and others joined the dialogue in criticising Berkeley and each other into the nineteenth century. ... (He) “recognises Reason at once personal and supreme. It is a fact of history that Berkeley has employed the modern philosophical world, in a struggle ...about his new conception of the universe for nearly two hundred years.” [Chambers’s *Encyclopaedia*]

The ‘Age of Reason’ followed the French Revolution and brought forward the great flowering of science and technology now becoming rather full-blown perhaps. But as early as 1726, a young Voltaire after visiting Newton and the ‘more radical of English thinkers’ had said: “It is to him who masters our minds by the force of truth, not to those who enslave men by violence; it is to him who understands the universe, not to those who disfigure it, that we owe our reverence.” But Newton himself, a Fellow of Trinity at Cambridge and a professor of mathematics, was in the thick of religious politics. In defending the rights of the university against James II he earned himself a seat in the Convention Parliament and later, Master of the Mint. He is said to have attributed to God those things which he could not explain by maths

and science.

This is condoned by Paul Davies (p189 ib): “The laws of physics may be able to take us only so far and we could then seek a deeper level of explanation. The philosopher Richard Swinburne ...has argued that it is simpler to posit the existence of an infinite mind than to accept, as a brute fact, the existence of a contingent universe. ...Personally I feel more comfortable with a deeper level of explanation ...Whether the use of the term ‘God’ for that deeper level is appropriate is ...a matter of debate.”

This immaturity on the part of trained minds is hardly excusable. It may have been necessary to survival in Newton’s day and socially safer in the youth of Bertrand Russell, a century past. Since then those ‘deeper levels’ have been faced by Darwin, Freud, Jung and others on behalf of those who are prepared to “confront the unconscious” as Carl Jung put it half a century since. Now that we have the higher mathematics of Einstein and the Quantum physics leading therefrom, what need is there for ‘an infinite mind’ to show the way forward?

Perhaps Paul Davies is doing his bit to solve this problem by bravely opening up these questions and putting his own reputation for mental maturity on the line. He does not face up to the unconscious mind or the collective unconscious though. Like Teilhard de Chardin in his ‘*Phenomenon of Man*’ he avoids mention of Freud and Jung, showing ignorance of them in fact as he introduces “mystical knowledge” (p226 ib) as a kind of magical inspiration rather than as the natural working of mind, both conscious and unconscious. But he did say in the preface that “mind - i.e. conscious awareness of the world - is ...an absolutely fundamental facet of reality.”

One could write a book on this. In fact, one has already written the MS*, in which is discussed the positive working of mind with special reference to ‘invoking the unconscious’. By relaxing into a state of trance - by thinking in pictures or concepts before converting the ‘dream’ into words or designs. “If the waking trance of the dawn is a good way to see visions ...for painting and writing, then relaxing under a warm shower may be even better. The standing day-dream comes a little nearer to reality - washed clearer for recall later - though I believe some do quite well in the soporific comfort of a warm bath*”. But to receive ‘inspiration’ in arts, science or any other form of endeavour, the mind must be already trained and experienced in the relevant field. Even such ideas that might flow from a ‘collective mind’ via some form of spontaneous telepathy can only be picked up by

those who are mentally equipped for it, one would think.

History is full of artists, scientists and ordinary people like Mozart and myself who admit to having ideas and impulses coming to them 'out of the blue'. DH Lawrence said that they blew through him like the wind. Business people strut the office while absent minded professors may go for a walk in the woods but the ideal inspiration is received with the mind on the job and confident of success. Salman Rushdie is quoted as saying that every novel he had written had "come about" by "stories, fragments, incidents or characters, quite disjointedly" coming to him till he "began to panic about not having a book to write". He then tried "to formalize these vague notions ... " "But suddenly, without quite knowing how, he finds all these fragments ... have in fact been part of a larger idea that was really what he was thinking about unconsciously - 'and that's the novel I have to write'." [p99 Salman Rushdie by WJ Weatherby /Carroll & Graf NY.] Patrick White called himself 'an intuitive writer' too.

But I must conclude with the recommendation to read the 'Mind of God' by Paul Davies as a brilliant dialogue 'between self and soul' by one who has not yet made up in his mind what is rational to believe and what can be left to eternity to solve or not to solve. Such a work might be more effective to influence the open mind than one-sided didactic works could be. After all, there is one born every minute, as PT Barnum told us in the first place.

* Use Your Nous & Fringe of Mind by Noel Bryning [unpublished] ■

REVIEW

Statistics

Michael Morris

How to Lie with Statistics, Darrell Huff.
Penguin, 1988.

In the introduction to this book, Huff remarks that it "is a sort of primer in ways to use statistics to deceive. It may seem altogether too much like a manual for swindlers. Perhaps I can justify it in the manner of the retired burglar whose published reminiscences amounted to a graduate course in how to pick a lock and muffle a footfall: the crooks already know these tricks; honest men must learn them in self-defence."

This book is aimed at anyone interested in gleaning the grains of *Truth* contained in all those figures published in newspapers and magazines, and quoted in the news. It assumes no prior training in statistics or mathematics, and for those who aren't mathematically inclined, contains not one formula.

There are chapters on sample bias, different types of averages, inadequate sample sizes, measurement error, misleading graphs, independence between data and conclusions, and issues concerning causality. The final chapter is titled 'How to Talk Back to a Statistic', and gives a useful overview on how to recognise useable data.

Each chapter is clear, non-technical, and gives many examples culled from the media, which gives the advantage of making the issues addressed seem real to the reader.

Although it is very much a beginners book, I thought it would benefit from material on the more in-depth statistics being published in the media these days, such as standard deviations, and the meaning of statistical significance. In spite of this, it is a useful introduction to some of the ways in which statistics can be used and abused, and how to tell the difference.

As so many of the claims that are now being made for the validity of paranormal claims rely, to a great degree, on the statistical significance (or non-significance) of very minor effects, and as many Skeptics have not had any training in statistical methods, this book represents an easy way for the lay reader to understand the meaning of obscure technical terms. ■

REVIEW

Philosophy Phrom the Phringe

Sir Jim R Wallaby

Australian Skeptics appears to have become the target, in recent times, of some interesting propositions from readers overseas. In the last issue, I reviewed a paper on kinesiology from a Mr Marven Gibson of Phoenix, Arizona. Despite the author's conviction that he had discovered startling new insights into the human psyche, I found his assertions to be marginally less compelling than a government election promise.

Since then, we have received two further examples of high quality research from the Americas, which the Editor, that enlightened being, has passed to me for comment. As is my wont, I shall review them with my usual scrupulous attention to detail and sensitivity to subtle nuance.

The first missive, entitled "Good News for Planet Earth", came from a Mark Frey of Redwood Valley, California.

It begins "This is the first installment of the amazing autobiography of a young man who believes he is in contact with space aliens, that he was abducted and taken to another planet for therapy (and not before time, I would judge. **JRW**), that the aliens are God's emissaries and that God has charged him with telling the world."

Now I am perfectly happy to believe that this paper contains the most important message that humanity is ever likely to hear, but I regret to say that Mark appears to be an adherent of that school that holds that the smallness of the print and the density of the script somehow adds to the verisimilitude of the message. This is a conviction of which I would dearly love to disabuse him. Nonetheless I shall just give readers a taste.

The first two pages consist of four columns in a type face which has been photo-reduced to about 4 point. The next six are in similarly sized hand writing and all pages have interposed drawings of extraterrestrial beings, crop circles and pyramid shaped buildings. The story contains an eclectic assortment of biblical references sprinkled among the spacefaring prose. The margins and spaces between the columns are liberally decorated with hand written notes, leaving a bare minimum of clean white paper anywhere in the dissertation. This is a sure sign of a certain kind of philosophy, to the adherents of which the old adage, "Nature abhors a vacuum" has a

compelling corollary, "Blank paper is the Devil's playground".

As for the text, I'm afraid that the Wallaby eyes are not what they used to be ("No, they used to be my ears." The Famous Eccles, 1953) and despite the undoubted gravity of the message contained in this vital document, readers will not learn of it from me.

The second of the offerings is altogether a far more substantial piece of work. Tastefully spiral bound with a pleasant grey cover, this 22 page masterpiece purports to be a "New - Revised - Expanded" edition of a paper entitled "Ross' Rules - Towards a general theory concerning human affairs and the environment" and is the work of one Edward M Ross of Toronto, Canada.

Now this, despite the rather dated tone of the subtitle, would appear to be something into which one could sink one's bicuspid and it was with barely restrained avidity that I launched myself into the task.

By the end of the first line of the preface I felt my enthusiasm oozing from my toes like treacle down a drainpipe.

It read "A split occurred in the psyche of Western man during the Age of Reason, a split that led him to develop science and technology at the expense of art and spirituality", which led to "decadence, materialism, inhumanity, mental disease, moral, cultural, national and racial arrogance" among other equally repulsive failings. It got no better the further I read, with references to how our modern minds cannot comprehend the "symbolic and intuitive modes of thought upon which ancient minds based their vast and impressive achievements", before admitting that "this is the tangible result of years spent in the study of Astrology..." and the assertions that "A knowledge of Astrology makes Man aware of the time and character of Nature..." and "Practically all of our social sciences have stemmed from Astrology...", a thought I have, from time to time, entertained myself.

One statement in the Preface claims that "there are two kinds of people in the world. Those who know and those who do not know." (In my experience, there are two kinds of people in the world, those who say "there are two kinds of people in the world", and those who don't.)

Mr Ross' underlying theme appears to be that 'Man is part of Nature', but he insists in clouding this entirely uncontroversial assumption with a lot of waffle about astrology. The Preface goes on to make predictable attacks on the 'blindness' of those who demand 'scientific proof' of astrology and the remainder of the four-pages indicate that the main reference work in Mr Ross' library must surely be *The Oxford Book of Fatuous Assertions**.

The Introduction (a further two pages) contains some amazingly cogent stuff, including "I was fortunate to have been born in circumstances where the estimated time of birth appears (after rectification), to have been accurate." What can one say to that? Then, "The essence of what I have attempted, is the systemization of an empirical science. To those seeking a material or physical basis for Astrology, I suggest they consult the science of Astronomy." And, if you do, you will find that Astrology is Bunk. The Introduction concludes with a statement that in the Preface and Afterword, "brief excerpts were quoted or paraphrased from the works of:" (*inter alia*) "Miguel Cervantes, Oscar Wilde, Paul Robeson and David Suzuki", as eclectic a bunch as one is ever likely to come across, but one whose members would be unlikely to recognise their words amid the dross of this turgid tract.

The meat of the work consists of five parts, two of which appear to give Mr Ross' imprimatur to certain astrological practices, two which delineate "questionable" practices and one which describes "Return charts", whatever they may be.

The first chapter, "Valid Rules and Practices in Natal Astrology", contains the following (selected at random) gems of concise and cogent information:

"6. The degree meaning of the Sun is most important in determining the correct day of the prenatal epoch, (or conception chart), on that day."

"8. The degree meaning of the Sun is most important in determining the approximate time of day at birth."

"18. Intermediate house cusps should be regarded as tentative rather than absolute."

and they reckon quantum mechanics is obscure!

In Chapter 2, "Transits and Progressions", Mr Ross really lets his hair down:

"7. Transits (environmental factors), are never regarded as significators, therefore, transits through signs and houses, of themselves, signify nothing." I have always believed that.

"17. Ingresses by the Midheaven signify changes in aspirations." Well, if that is not self-evident, I don't know

what is.

"19. Retrograde progression, of a planet, denotes impaired functioning of that faculty signified by the planet." No it doesn't, it denotes that the Earth is travelling faster in its orbit than the other planet.

I will pass over Chapter 3 "Return Charts" as it, even by the strange language of this paper, is monumentally obscure.

In Chapter 4, "Questionable Rules and Practices", I was intrigued to note that 14 in Mr Ross' questionable practices is "Dispositorship", a claim with which I find it difficult to argue. No 33 states, "Void of Course", which is also void (of course). However, 32 solves a problem I have had with astrology for some time. It nominates "Asteroids and planetoids" as being astrologically questionable. It doesn't say why, but item 27 disposes of "Heliocentric astrology", which leaves astrology firmly in the pre-Copernican age.

In the final chapter, "Questionable Rules and Practices Delineation, Past and Future", he casts aside "Hypothetical planets" (16) and "Arabic parts" (15) which must come as a relief to all except Arabs. In item 17, he really puts the boot in with a vengeance, as he denies legitimacy to "Anareta or Hyleg", so if you are saving bottles of Anareta and Hyleg in your cocktail cabinet, get rid of them at once. And the final questionable practice in the book is 23, which is "It is the sole purpose of Astrology to accurately predict future events", which we sceptics knew all along.

So, what did I think of Mr Ross' life's work? To put it as kindly as I can, it is one of the most vacuous collections of *non sequiturs* it has ever been my misfortune to encounter.

Of Mr Ross, we are told nothing, which is probably fortunate for him, if only to save him from the attention of thousands of importunate Australians selling shares in the Sydney Harbour Bridge.

The final piece of unsolicited verbiage came in the form of an unsigned and rather stained lettergram from the Republic of South Africa. Consisting of a series of fulminations against "pederasts and drug pushers", it concluded with the question "What became of the ANZACS?" The answer to that is, of course, "Most of them are dead". The relevance of this piece of correspondence to Australian Skeptics is, and is likely to remain, obscure.

* If this book is not already in print, I offer the concept to Messrs Oxford University Press, *gratis* ■

World Round-up

Harry Edwards

Dr Richard Boylan, a Sacramento, California psychotherapist, is being sued by two female patients after they were treated in "naked hot tub sessions" for trauma, the result of being abducted by UFOs.

The lawsuits charge that he used:

"extraterrestrial phenomena to diagnose and treat the women's emotional problems so that he could get them to join him in 'naked hot tub sessions'...Boylan told them that based on his interpretations of their life experiences, they had separate close encounters with extraterrestrial life...he further advised the women that their extraterrestrial experiences were of interest to the 'CIA and/or the FBI,' which would have an interest in keeping them under surveillance."

The Sacramento Bee. July 12 '93

* * *

The highly regarded UFO sceptical investigator, Philip Klass, in the most recent issue of his *Skeptics UFO Newsletter*, reports that Budd Hopkins, David Jacobs and Ron Westrum have recently published results from a survey on paranormal beliefs. If their data interpretation is correct, since the first reported UFO abduction case of Betty and Barney Hill in 1961, 3.7 million Americans have been abducted. As Klass notes, "this means that an average of nearly 340 Americans have been abducted every day during the past 30 years. Because most UFO abductions (allegedly) occur at night, this means that (on average) every two minutes during the past 30 years another American has been abducted."

* * *

In case any sceptic thinks people who believe in UFOs are stupid, consider the fact that Klass reports that Ed and Frances Water's book, *The Gulf Breeze Sightings*, netted them an advance on royalties of \$200,000, which is more than 10 times higher than most authors receive from trade publishers, and more than 20 times higher than most scholars and scientists receive from academic publishers.

Of course, one must still look in the mirror every morning and live with oneself.

Skeptics UFO Newsletter.

The tabloid headline of the year goes to the *National Enquirer* for their announcement: CHINA'S BIZARRE PLOT TO KNOCK EARTH OUT OF ORBIT. "If everybody in China jumped up and down at the same time they would knock our Earth out of orbit, and that's exactly what the monsters are threatening to do..." The source of this story is Henk de Vries, "whose scholarly texts on China and its people are known to experts around the world." He places the blame on the Communist Party which, since it is disintegrating, feels that if they can't take it with them nobody will. Other experts (also nameless) were quoted as confirming "the forces generated when 1.3 billion jump up and down will break the Earth free of the Sun's gravitational pull and send us sailing off into space like a pinball machine that never stops."

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(and if they all faced west and passed wind at the same time, the world would stop revolving and I could get off!" HE)

* * *

New American Skeptics Society

A new sceptical group, the Skeptics Society, has been formed based in Altadena, California, with similar aims to those of Australian Skeptics and others dedicated to promoting science and rational scepticism.

Their first class, glossy quarterly magazine, *Skeptic*, deals with cults, religion, science and other social issues, as well as the issues normally covered in *the Skeptic* and *the Skeptical Inquirer*. Each issue of *Skeptic* tends to concentrate on one topic, with several papers giving different points of view.

Publisher of *Skeptic* is Michael Shermer, PhD, Adjunct Professor History of Science, Occidental College. We are happy to advise our readers of this useful publication and wish the Skeptics Society well.

Skeptic is obtainable by subscription from:

Skeptics Society

2761 N. Marengo Ave,

Altadena, CA 91001. USA.

Membership rate US\$40 per year.

HEALTH

Therapeutic Touch –

The Low Calorie Placebo

Kathy Butler

So where would you go to learn about “the subtle energy patterning of the human energy field important to the healing process during Therapeutic Touch”? Health food store? Shirley MacLaine revival? The pamphlet appeared on a notice board at my work (a large Melbourne hospital) explaining how a nurse might decrease pain, accelerate wound-healing, and even increase patient haemoglobin by learning the technique of Therapeutic Touch (a modern version of the “laying on of hands”). It had all the hallmarks of pseudoscience: plenty of nebulous psychogabage “..power from personal commitment....the subtle energy patterning of the human energy field...”, it is non-invasive (you don’t even have to touch the patient, just pass your hands over them in a carefully trained manner utilising an Energy Unknown to Science), and it costs you a fair whack of your hard-earned pay-packet !

The infuriating part is that this pseudoscientific garbage is endorsed by a respectable Australian University. The information appears on Flinders University letterhead and is offered as continuing education by the faculty of nursing, costing the participant \$350 for a two-day course. It is promoted for use in both private practice and the public hospital system.

The recent form of Therapeutic Touch (TT) was developed by Dolores Krieger, a professor of nursing at New York University. She has spread the gospel of TT throughout the US college and university system, and in a number of foreign countries. Professor Krieger has actually had a few scientific papers in print in the ‘70’s which she says support the claims made in the Flinders University pamphlet. The most interesting one about raising a patient’s haemoglobin appears in a journal called *Psychoenergetic Systems*. Not surprisingly, no university or hospital library in Melbourne has heard of it. This, and the few other research papers on TT have been publicly criticised for poor experimental design, inappropriate use of statistics, misleading interpretation of results and failure to consider the placebo effect. The scientific evidence for TT is, at best, very weak.

In spite of this, Krieger’s teachings have spread rapidly throughout the American and overseas nursing education systems. Apparently, this has occurred with few voices of objection except for the Rocky Mountain Skeptics (USA) last year, and more recently by myself, Adam Joseph and Dr Steve Bassar on The Liars’ Club, Melbourne’s sceptical radio program. We put these objections to Lorraine Kelly, director of nursing at Flinders. She seemed honestly unsettled that TT could be considered a questionable therapy. She did not feel that it was an inappropriate choice for nurses’ further education, and that even if it was merely a placebo it was a worthwhile endeavour (even at \$350 a shot, apparently).

Lorraine Kelly’s opinion is sadly not uncommon. Many people are horrified to think that a supposed expert’s teachings are questionable, especially when they have the veneer of respectable science.

The potential for damage by this course is threefold.

- Health funding in Victoria and South Australia is in crisis. Nursing resources are stretched more than ever. Surely valuable nursing hours are better utilised with scientifically proven, genuinely useful nursing methods?

- The validation of TT by a prominent University like Flinders confers upon all pseudoscience an undeserved respectability, at the expense of its own reputation. The nursing profession deserves its reputation as a highly skilled medical body. Either embracing pseudoscience or having it thrust upon them devalues their credibility. I quote authors Philip and Mary Jo Clark in *Nursing Research* :

“Without (scientific) evidence, the nurse practitioners of Therapeutic Touch will be relegated to the practice of ‘placebo mumbo jumbo’.”

References:

- Bullough, V et al in: *Skeptical Inquirer*, Winter '93.
- Kreiger, D 1976 *Psychoenergetic Systems*, 1:121 (could someone please send me a copy!)
- Clark, PE and Clark, MJ. 1984 *Nursing Research* 33(1) p37.
- Sandroff, R 1980 *RN* 43(4) p35



MEDIA

The UFO Photo that Wasn't

Mark Kriewald

Last year, the *Courier Mail*, Queensland's tabloid-disguised-as-a-broadsheet newspaper, ran a short piece about an amateur photographer capturing a UFO on film. In the spirit of sceptical inquiry, I rang the photographer, Daphne Plumb, to ask her about the photo, and see if she could send me a copy. She was happy to answer my questions, and a copy of the photo arrived soon after (fig 1). I had Ridley Williams, QUT lecturer in photography and media studies, analyse the photograph. Daphne's own testimony and Mr Williams' analysis strongly suggest that the photo is not of a UFO. Although it may look impressive, it is merely an effect that most photographers encounter at one time or another.

Daphne's own testimony showed that the streak on the photo was not a UFO. First, she said that 'the streak goes across the entire negative to the sprocket holes', in other words, *the area of the film which was not exposed when she took the photograph*.

Thus, the image was not made when she took the photograph. Second, she said that she used a remote shutter release, and that she was looking at the sky at the exact time she took the photograph. "But I didn't see anything when I took the photo," she said. If the image was not, therefore, caused by a physical object, what was it caused by?

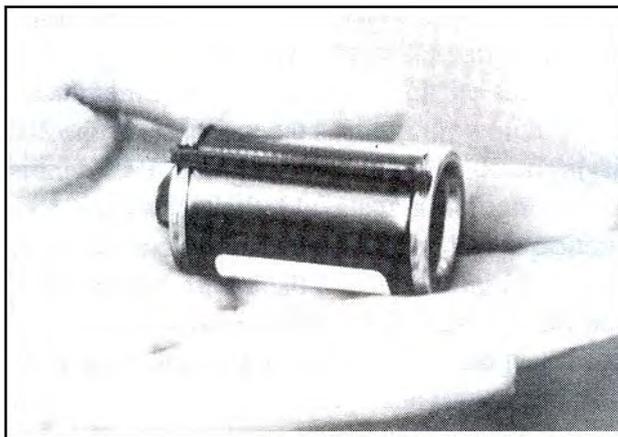
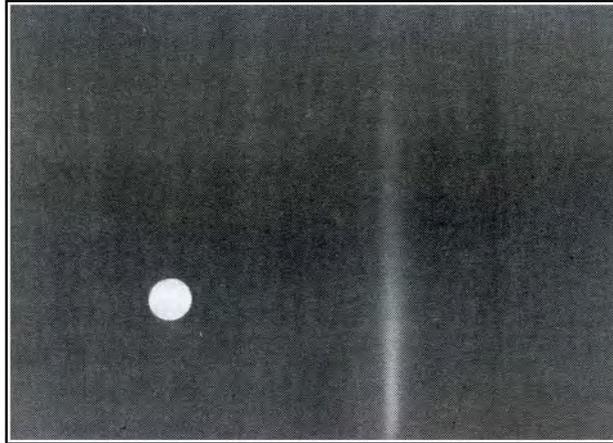
When I showed Mr Williams the photo, he immediately laughed, and said "Light leak. What's most likely happened is a light leak. I've had it happen to me, and it's quite common." He explained that when a roll of film is left to sit in its canister, light can leak through the canister's felt-lined opening (fig 2). "This can leave a streak of light across the width of

the film. The redness of the light in this case suggests a tungsten light, such as a desk lamp". A light leak goes across the whole of the film's width, including the sprocket holes, as in Daphne's case. Further, Mr Williams said that the *shape* of the streak is congruent with a light leak. "When the film is in the canister, it is wrapped around, and light leaking in will curve around the film. That's why the light is brightest in the centre of the streak, and becomes darker as it moves outwards," he said.

So the photo is not of a UFO, as Daphne seemed to hope. I don't think she's a fraud, however, as she was very cooperative, and seemed bemused by the whole affair. The *Courier Mail*, on the other hand, should be called into question - and not just because they ran such a shaggy-dog story.

The way the *Courier Mail* cropped the photo actually helped suggest that the image was not caused by a light leak. As Ridley Williams said, "If you had only shown me the *Courier Mail* photo, I would have said it *couldn't* be a light leak because the image runs along the *length* of the film, not the *width*, and this sort of light leak runs across the film. They've simply cut the ends off the *landscape-oriented* photo, which makes it look like it's *portrait-oriented* when it's not."

Whether the *Courier Mail* did this knowingly or not, the effect is still the same. I would like to think that it was not intentional, because the way they cropped the photo actually meant they fit the most of the image in the small amount of space. However, given the media's insistence on covering paranormal claims - and even helping create them - I would not be surprised. ■



COMPETITION

Tell the Future, Win a Book

At the suggestion of Ian Plimer we are running a Prediction Competition in which readers are asked to send us between 10 and 20 predictions of events that will take place between now and our next annual convention in June 1994. Entrants should send their predictions to "Predictions" PO Box E324, St James, 2000, and (and here is where we differ from the average 'psychic') send us a newspaper clipping or other evidence when any of the predictions come true.

The winner will be announced at the convention and will receive a copy of "In the Beginning, the first five years of *the Skeptic*".

Ian's 20 predictions follow:

Seismological

1. California (Earthquake)
2. Japan (Earthquake)
3. Indonesia (Volcano)

Disasters

4. China (Civil air disaster)
5. Russia (Famine)
6. USA (Train crash)
7. Indian subcontinent (Floods)
8. Chad (Drought)

Political

9. Palestine (Political turmoil)
10. Caribbean (Political turmoil)
11. Georgia (Political turmoil)
12. Turkey (Change in leadership)
13. Pakistan (Change in leadership)
14. Clinton (Decline in popularity)
15. Papandreou (Decline in popularity)
16. South Africa (Political assassination)
17. Italy (Political scandal)
18. Australia (Political scandal)

Financial

19. Gold Price (>\$US 400/ oz)
20. Victoria (Industrial action)

Which indicates just what a conservative old seer he is. No imagination these academics, not like us real psychics, who know that you only have to get up one way-out bet in a lifetime to make a reputation as an "internationally famous psychic".

Now here are some *real* predictions from Sir Jim R Wallaby.

1. Harry Edwards reveals that he is actually Elvis. He attempts a comeback and fails dismally when his hips no longer swivel.
2. Ian Plimer is exposed as the Antichrist. Creationists say "We told you so".
3. Alex Ritchie appeals to the High Court about No 2. His appeal is denied as none of the Justices can understand Glaswegian.
4. Tim Mendham is elected Pope. He immediately canonises all members of Led Zeppelin.
5. Republicans and Monarchists reach a compromise. Sir Jim R Wallaby is appointed King of Australia.
6. Paul Keating resigns and sets up a New Age counselling service. 'Scumbag' replaces 'holistic' as the all purpose sensitive word.
7. New Idea fails to mention Princess Di or diets and is declared insolvent.
8. Ian Drysdale invents a new motor fuel which is distilled from Patterson's Curse. Cars using the new fuel are identified by swarms of bees around the exhaust pipe.
9. Adam Joseph is appointed Managing Director of the ABC. Several astrologically correct news readers resign in disgust.
10. Bronwyn Bishop enters a nunnery. Pope Tim I immediately mobilises the Swiss Guards.
11. Juan Sammaranch says he was only joking and that the real host for the 2000 Olympics is Ulan Bator. The Mongolian President is signed up by Toyota.
12. Steve Walker is abducted by aliens from the Pleiades. Henceforth, all abductees report that their captors greet them with "Eee Oop! Trooble 't mill!".
13. Barry Williams is offered position as Editor-in-Chief of John Fairfax & Sons. He refuses when he learns that he will have to type all the copy himself.
14. A psychic gets something right. Australian Skeptics goes into voluntary liquidation.
15. Karl Popper recants. Rafe Champion enters nunnery.

So there you are all you sceptical prognosticators. Surely you can do better than these pathetic examples. Get your entries in right away. ■

FORUM

Active and Passive Smoking

A sceptical response

David H Lewis

Dr Gray of the Anti Cancer Council of Victoria's article in the June 15 1992 edition of the *Medical Journal of Australia* entitled "Active and Passive Smoking" has recently come to my notice. While not wishing to single out Dr Gray personally, his article is typical of the flawed anti-smoking arguments generally and calls for a critical response.

The whole tone of Dr Gray's piece presupposes that there is absolutely no debate about his assertions against smoking and that his melancholy duty is merely to catalogue the folly and iniquity of the habit. Despite this righteous complacency his article exhibits a number of internal contradictions not to mention several inconsistencies with the external evidence.

In the very first sentence he boldly claims "Active smoking is the largest cause of avoidable death in Australia" almost, indeed, "the planet"(!), but he offers us no reason to believe this startling claim is true. If this really was the case it would be a relatively simple matter to provide us with the comparative life expectancies enjoyed by smokers and non-smokers. Instead we are left to take this on trust but our confidence in the claim is somewhat diminished when we look at the recent US Multiple Risk Factor Intervention Trial (1990). This had randomly assigned 12,866 high risk men either to an experimental group (which cut down or cut out smoking) or a control group who were left to their own devices. On follow up there was found to be a slightly higher mortality among the experimental group than the continuing smokers! Even if we disregard the small apparent advantage conferred by smoking, these findings give no support whatever to Dr Gray's assumption that smoking kills or that quitting saves lives. From this it would appear that smoking or not smoking has a negligible effect on life expectancy.

His next rather immodest claim is that "tobacco smoke is the greatest known mass carcinogen in history" (Has he ever been out in the sun!) but in the very next breath he considerably dilutes this potency by admitting it generally takes a massive number of cigarettes to develop lung cancer. Here he unwittingly opens a very

paradoxical can of worms - the dose response relationship, or rather the lack of it. If lung cancer is really caused by direct carcinogenic action we should expect to find an early onset of disease among heavy smokers but Pike and Doll's 1967 study of British doctors found "neither the amount smoked nor the age of starting made any substantial difference to the average age of the onset of the disease" (p 667). Incidentally, in his address to the Royal Society last year Sir Richard Doll admitted, if only *en passant*, the possibility that 95 year old smokers perhaps have "remarkably good genes"! This factor does not seem to have occurred to Dr Gray at all but if genes can be admitted as an explanation of longevity they must surely also be open to blame for an early predisposition to cancer and coronaries. Dr Gray seems to assume throughout that smokers develop lung cancer and coronary problems entirely from adverse environmental factors.

Going from strength to strength he then states "the future can be forecast with some accuracy"! We then have to persevere through a rather rambling dissertation but he finally concludes with the triumphant prediction "that smoking is genuinely on the way out"! On the way through he takes a swipe at that old devil, passive smoking, which he says "causes a modest number of Australian deaths a year". What "modest" means is not clear although 6,236 lung cancer deaths in 1989 is described as "epidemic".

The Drug Offensive booklet *Drug Abuse in Australia* 1992 claims 1650 people die each year from passive smoking and just recently the President of the AMA Dr Nelson issued a statement (*Queensland Times* 30/8/93) saying "studies have shown passive smoking in the workplace is associated with a 34% risk of lung cancer". Given that 20 and 30 years ago virtually everyone in the work force was exposed to passive smoke this suggests that one in three of those several million people should now be exhibiting lung cancer. Even if we make allowance for Dr Nelson's famous over enthusiasm against smoking and divide his hypothesis by ten it still does not accord with Dr Gray's total figure of only some

131,000 fatalities from *all* respiratory cancers over the WHOLE of the last 40 years from *all* causes! In other words the figures are hopelessly discordant and engender no confidence or credibility whatsoever.

As for the evidence that passive smoking *causes* lung cancer in Australia Dr Gray pins his faith on Hirayama's 1981 Japanese study apparently quite oblivious of the notorious variations in ethnic responses to tobacco. Was he unaware of our own National Health and Medical Research Council's 1987 finding that "the effect on lung function of acute exposure to passive smoke in healthy individuals appears not to be substantial"? (p44). Did he overlook Janerich *et al's* 1990 findings (p 634). (which stands in stark contrast to Dr Nelson's 'studies') that there was "no evidence of an adverse effect of environmental tobacco smoke" in the workplace? Or further, that in social settings, exposure "showed a statistically significant inverse association between environmental tobacco smoke and seems to actually confer a protective benefit" must be a considerable embarrassment to the "passive smoking bandwagon" as Dr Gray incautiously describes it.

Worst of all though, Dr Gray's Japanese authority, Hirayama¹, was roundly (and separately) criticised by Mantel² and Lees³ and later admitted to errors⁴ of up to 1000% (Yes, thousand!) in some aspects of his work!!!

So much for passive smoking but let us return to active smoking. There is agreement that smoking has declined from about 70% of the male population in the mid 1940s to about 30% today and is still falling. Given the 20 or so years time lag allegedly required for cancers to develop we should reasonably expect then that cancer rates should also show a related plateau to about the mid 1960s and to be declining readily thereafter as smoking declined through the 1940s. Against this expectation Dr Gray says "Lung cancer is currently epidemic in Australia" and peaked in the early 80s. It seems odd that a tobacco market well in decline in the 60s should lead to such a peak in the 80s particularly when Dr Gray tells us low tar (Evidently his preferred culprit) cigarettes have been available "for two or three decades".

Moreover, if, in round numbers, we divide Dr Gray's figure of some 130,000 total deaths from respiratory cancers since 1950 (and generously assume they were ALL attributable to smoking - not old age etc!) by the 40 odd years since 1950 we get an average of 3250 deaths per annum. Since 1989 alone gave us nearly double that average expectation (6236) and the peak occurred in the 1980-85 period that must considerably reduce the average number of lung cancer deaths occurring in the

1950s and 1960s. Now since these figures (let us guess at say 1600 p/a) allegedly appeared in response to smoking patterns of the 1940s when smoking was at its most popular we in fact appear to be getting quite the reverse of what Dr Gray and conventional wisdom would have us believe. That is, a low incidence of cancers 20+ years after smoking is most popular but an "epidemic" of cancer 20+ years after smoking is well in decline! On Dr Gray's own hypothesis, whatever has caused this "epidemic" can hardly be cigarettes.

Dr Gray doesn't seem to notice this contradiction in his own figures but it demands explanation and a large part of the answer probably lies in Dr Penelope A. McKelvie's article published almost exactly a year after Dr Gray's (*MJA* 21/6/93). This piece deals with the notorious unreliability of death certificate information and confirms numerous previous studies warning against drawing firm conclusions from faulty data. As Cameron and McGoogan's 1981 study stated "...statistics from death certificates are so inaccurate that they are not suitable for use in research or planning". (p 281).

This unreliability is compounded when we then consider the research into detection bias, well illustrated by Feinstein and Wells' 1974 study. They took 654 *post mortem* diagnoses of lung cancer and compared the *pre mortem* detection of lung cancer with the patients previous smoking habits. Where their smoking habits were unknown 27% of the lung cancers were not detected; among known non-smokers 38% were missed but in heavy and extreme smokers only about 10% were not diagnosed. As the researchers said, "cigarette smoking may contribute more to the diagnosis of lung cancer than it does to producing the disease itself"! - p.184.

This leads us on to another factor beloved of the anti smokers - the (apparent) mortality ratio purporting to show the proportions of smokers to non-smokers dying of particular diseases. Lung cancer shows the highest mortality ratio and this apparent correlation is all too readily understood, on the orthodox view, to demonstrate causation. The two previous paragraphs should be warning enough against such a simple interpretation. In any case, determining causation is a very subtle and complex process not so easily achieved. In simple terms, X and Y are always closely linked but no one believes X causes Y!

So to summarise:

1) Dr Gray's own figures on the history of smoking and the incidence of an "epidemic" of lung cancer do not bear out his assumptions of cause and effect.

2) His assumptions about the harmful effects of passive smoking are not borne out in recent studies.

3) His assumption about the lethal effects of active smoking are not borne out in recent studies nor indeed by his own figures.

4) His model of smoking's effects is far too simple and ignores numerous complicating and contaminating factors.

Finally it should be remarked that the evangelistic enthusiasm of anti-smokers generally are not likely to be productive in the long term. Immoderate emotive language, threats of moral blackmail and wild exaggeration may eventually backfire on the credibility and good name of the medical profession as a whole as the true situation becomes better understood by the general public.

If, as it seems likely, smokers and non-smokers enjoy the same life expectancy there can be no justification for the cyclone of misinformation and witch hunting hysteria whipped up by the well meaning but misguided anti-smoking campaigners. It may also ultimately be seen as a monumental red herring diverting research away from far more promising prophylactics of cancer and coronaries.

We have recently seen the demise of ASH - Action on Smoking and Health. Perhaps ASH should be recycled to TRASH - Think Rationally Against Smoking Hysteria.

References:

1. Hirayama T (1981a) Non-smoking wives of heavy smokers have a higher risk of lung cancer: A study from Japan. *British Medical Journal*, 1, 183-185
2. Mantel N (1981) Topic title as above. *BMJ* 2, 914-915
3. Lee PN. (1981) Topic title as above. *BMJ* 2, 1465-1466.
4. Hirayama T (1981b) As above, *BMJ* 2, 916-917

Editor's comment

I have no doubt that this article will generate a considerable influx of correspondence from our readership. Because its subject lies on the fringes of our aims and is controversial (to say the least), it has been included in the Forum section of the magazine and we welcome contributions from all who agree or disagree with the points made by David Lewis. However, we do ask that all contributions follow the rules of rational argument and eschew the tendency to emotional over-reaction that this topic so often generates in disputants on both sides of the debate.

It is appropriate that I should make my own position clear and stress that my remarks reflect my views and not those of Australian Skeptics, which, properly, does not have a position on this topic. I am a smoker and have been for almost 40 years.

As a smoker, I have been very much aware of the almost universal official condemnation of my habit and, dare I say it, the unscientific basis for much of the opposition. To be a smoker in our society is to be made a target for opprobrium much more vociferous than that levelled at child molesters and serial killers. I have been made aware that my lighting a cigarette in Sydney has a far more deleterious effect on the health of a person living in Perth than would the detonation of a 100 megaton thermonuclear device in Fremantle. Hyperbolic? Perhaps, but not very.

I have developed an hypothesis, based only on observation and not subjected to the rigours of scientific testing, as to why smoking, and particularly 'passive' smoking, has become the ideologically acceptable target for the bigotry that lurks within all human breasts. It may well be categorised as an exercise in self-justification and I accept that as a possible explanation.

History shows that among all people, at all times, there has been a perceived need for some class of 'other' to whom individuals can feel superior and against whom one can acceptably direct scorn, derision or hatred. It is one of the nastier aspect of our species, which has been exemplified by racial, national, cultural, religious and sexual intolerance, among many others. These prejudices are not rationally derived, but appear to be innate in the human animal. In modern, liberal, democratic and tolerant societies, these prejudices can no longer be decently expressed, at least publicly, but the underlying human need still exists, and so an acceptable 'other' has been found.

A recent *New Scientist* article showed just how all pervasive this prejudice is. Scientists seeking to conduct research into beneficial effects of tobacco (and there is some evidence that smokers are less prone to Parkinsons and Alzheimers diseases) have grave difficulty in obtaining financial support for their work. The only sources of funds are tobacco companies and, of course, any research so tainted can be dismissed without any need for rational argument.

It may not be much of an hypothesis and space limitations preclude my expansion on it here. As a smoker and the owner of four cats (the next target, I predict), my views are immaterial, but David Lewis' article deserves serious and rational consideration. **BW**

FORUM

Thoughts about Lying

Marta Sandberg

In AD 385, the Christian authorities executed the Bishop of Avila for his heretical views. His belief - that all matter was created by devils may only seem strange by today's standards, but in those days the Church took any challenge to its authority very seriously.

As execution followed execution, the surviving cult members tried to protect themselves. Some went into hiding, others publicly embraced the "correct" faith whilst privately continuing with their "heretic" practices.

In retaliation, the authorities considered infiltrating the heretics with spies, but this posed a moral dilemma, lying about God - bearing false witness - was a grave matter. Was it acceptable for your agents to lie about their faith in order to catch those who themselves practised deception? To gain guidance, a letter was written to St Augustine. His reply (in part) said:

"I am quite delighted with your eloquence...with your zeal in raging against even latent heretics, but I am not persuaded that they should be drawn out of hiding by our lies. For why do we try with so much care to track them down and hunt them down? Is it not so that...we may teach them the truth themselves or else, by convincing them of error, keep them from harming others? Is it not in short, so that their falsehood may be blotted out or guarded against and God's truth increased? Therefore, how can I suitably proceed against lies by lying? Or should robbery be proceeded against by robbery, sacrilege by sacrilege, adultery by adultery?"

Fifteen hundred years later, in AD 1987, Harry Edwards faced a similar moral dilemma.

An article had been published in *People* magazine where he claimed to be a psychic. This follows in the tradition of similar incidents where various sceptics show by example how easy it is to mislead the media and the public. This time there was a complication - a Fijian woman had read the article and believed it. Earlier she had been told by a clairvoyant that one of her relatives in Fiji would soon die. Before returning to Fiji she wanted Mr Edwards to confirm the clairvoyant's prediction. He had a choice.

He could tell the truth - that he was a fake and leave the woman distressed as she would continue to believe that somebody close to her was about to die or he could

perpetuate the lie, see the woman in his guise as a psychic, and use his bogus powers to reassure her. He chose the latter option.

Four years later he published an article in *the Skeptic* (Vol 11 No 2 pp 17-19), recalling the incident and posing the question "is it alright to deceive in order to undeceive?" The article also raised other questions. Was it acceptable to lie in order to have the *People* article published in the first place? This is not the first such stunt the Skeptics have been associated with, can any of them be morally justified? Why is it different to lie to the general public through *People* than to lie to one person reading *People*?

These issues are touched on in a book well worth reading. *Lying: Moral Choice in Public and Private Life* by Sissela Bok (Vintage Press, paper, and Patheon Books, cloth. 1978.) Ms Bok teaches ethics and decision making in medicine at Harvard (?) Medical School.

Truth is not only a complex issue, but also a wide ranging one. The book does an admirable job of dealing with it, although you may, and almost certainly will, disagree with some parts, it should make you think about a vital subject that is too often ignored.

Ms Bok often refers to Middle Age scholars. In part, this acknowledges that the moral dilemma of lying has stayed the same throughout the ages, but it is also due to the lack of modern material on the value of a lie. It seems that the last two centuries have had other things to worry about and do not consider truth to be a major concern.

One of the basic points the book makes is that all lies have a price. If nothing else a lie hurts the liar. A liar loses trust in the honesty of others and once he has justified one lie it becomes easier to justify the next. Lies have a nasty habit of cascading and the liar's perspective of his activities becomes more and more skewed. When long term liars are unmasked they often do not understand why the rest of society find their untruths so wrong. Nixon didn't look very sincere when he apologised and Joh Bjelke Peterson never was!

Lying also hurts society. We need to be able to trust each other to function. That was why Samuel Jonson said that even devils cannot lie to another devil since the society of Hell could not exist without truth any more

than any other.

Ms Bok does not take the unforgiving view of St Augustine, but she stresses that all lies should be carefully screened. Some lies can be justified. For example, if a murderer asks where his next victim is hiding most of us would naturally lie our heads off. And if we could convince him to search the cells of our local police station we would probably consider ourselves as heroes rather than moral deviants. On a more realistic note, the use of unmarked police cars and disguised police radar traps is a form of deception, but one that is publicly known, discussed and condoned.

In fact, Ms Bok says that only such lies that can be justified in a public forum should be used. Public means just that, a group of Skeptics is not a representative sample of the public any more than the Church hierarchy was in AD 385. Small groups with a common interest can often find it easy to give self-serving justifications, and we do right to distrust them as a rule.

Most lies cannot be dealt with in a public forum, it simply takes too much time. Ms Bok suggests two useful short-cuts:

1. Look at the lie from the perspective of the victim. Consider the example of Mr Edwards and the Fijian woman. From his viewpoint the lie seemed justified. He soothed the fears of a deluded woman - it was almost a noble lie, done with the best of intentions and giving him no personal gain. From the woman's point of view it looks different. Mr Edwards becomes the liar who has judged her belief system and found it wanting. A liar that decided he knew best and had the right to deceive her and rearrange her private life. If she ever finds out what really happened it will be very hard to appease her anger.

2. Think of lies as a form of non-violent force. Force is used to gain power over someone, bend them to your will and prevent them from freely choosing what they want to do. Lies do much the same thing. To stop traffic using a road you can set up a road-block and forcibly turn people around, or you can use a false sign that says ROAD CLOSED - UNSAFE BRIDGE AHEAD.

A potential liar should ask himself if he is willing to use force instead of a lie. It is interesting that Mr Edwards would almost certainly have shied away from force or threats, he felt a lie to be justified. While the medieval Church felt fully justified in using brutal force, they could not condone a lie.

It is a very interesting book. It left me thoughtful and a lot less trustful of the world in general, and I no longer take white lies or exaggeration for granted.

It also left me with a question. We all tell our children about Father Christmas knowing it is an out and out lie and that sooner or later they will be seriously disillusioned when they discover the truth. Why are we doing it? Could it be that we are trying to teach our young how to distrust?

Harry Edwards responds.

A couple of years ago Ms Sandberg wrote to the editors of *the Skeptic* enquiring about cryonics. While it was questionable whether or not the subject came within our ambit (is it pseudoscience or the nascence of a new science?) I responded with a short article based on what information was at hand. (*the Skeptic* Vol 11 No 3 p 30). For some unfathomable reason Ms Sandberg read into the article what she saw as a personal attack (Based I assume, on her desire to believe in the plausibility of cryo-preservation) rather than what was in the main the subjective opinion of the writer, and reacted with an uncalled for vindictive tirade which was not deemed suitable for publication. From the tone and content of Ms Sandberg's covering letter it is apparent that the resentment still festers. However, be that as it may, this should not detract from the question she has raised - to lie or not to lie, or put another way, to tell or not to tell the truth.

Any attempt by me to come up with a concise black and white answer would be met with derision, when one considers the philosophical considerations given the question by such great minds as Aristotle, Aquinas, Descartes, Hobbes, Spinoza and Locke to mention but a few. However, as Ms Sandberg refers specifically to Edwards and the Skeptics I will try and confine my comments to my own personal beliefs and feelings.

First consider our aims as a sceptical group.

We are motivated by a belief that the public needs to be alerted to the fact that there are those in the community who are prepared to take advantage of the gullible (or to put it more diplomatically - the uninformed) and to endeavour to investigate extraordinary claims and make our findings public. Just as the Department of Business and Consumer Affairs performs a service designed to prevent consumer rip-offs, we like to think that we provide a similar service covering intellectual rip-offs which do not normally fall within their province.

The question of lying to deceive and other "stunts" associated with our members, is more or less imposed upon us by the reluctance of the purveyors of the

paranormal to accept our challenge to prove their claims. If they do not have the courage of their convictions, then we have little choice other than to seek alternative ways to get our message across, if this involves lying and deceit we are only fighting fire with fire and harm no one.

The Skeptics do not seek to impose their views on anyone, we only investigate, evaluate and present the findings. While we may be relatively small in numbers it would be as well to contemplate the growth of scepticism (at least of paranormal claims) world-wide. Where-ever and whenever groups hold their meetings the public is interested to hear what we have to say. The media now approach us instead of the other way around and our opinions are sought by diverse members of the community. So while we may be relatively small in numbers compared with some organizations, we do have a voice and it's getting louder. However, it is a mistake to suggest as Ms Sandberg does, that a small group of sceptics is not representative of the public, there are many members of the public who are in total agreement with our sentiments but who do not subscribe or belong to our organization.

Lying is a fact of life; politicians make promises they know full well they cannot honour, the clergy offer

salvation they cannot guarantee and the media often presents fiction as fact. In the case of the Fijian lady, to justify the lie I considered the altruistic aspects of the action - will it do more harm than good - will it please rather than upset - pacify instead of antagonise - engender happiness not despair? In the case of *People* magazine the lie served to show that those in whom many put their trust (psychics and clairvoyants) are no more qualified (supernaturally or otherwise) than anyone who cares to assume that title. Perhaps, and I hope, the message was clear.

I agree with Ms Sandberg, truth is a complex subject, but perhaps the real problem is that the truth is sometimes less palatable than a lie, so until such times as sodium pentothal flavoured cornflakes become a mandatory breakfast and we develop the fortitude to accept the truth, to lie or not to lie remains a matter for individual choice and personal justification.

Finally, the question of Father Christmas. In my experience (six children) there was no disillusionment on discovering that Father Christmas was really Dad or Uncle Joe, but they were elated to think that they were smart enough to work it out! Did that lie teach them distrust or did it encourage critical thinking? ■

Licencing of Psychics?

Harry Edwards

In the normal course of print media advertising, psychics and clairvoyants usually refer to themselves as being, "world famous", "internationally known", "renowned", and "acclaimed", even when they are unheard of nonentities. They are unable to produce any evidence other than their own promos to substantiate their hyperbole, and steadfastly refuse to submit to any form of controlled testing which would confirm or negate their wondrous claims.

In previous articles (*the Skeptic* Vol 7 No 2 p 27, Vol 9 No 3 p 50, and Vol 11 No 2 p 17), I opined that the only criterion required to be a psychic is to self-nominate as such. There are no examinations; no statutory, legal or ethical requirements; no moral or social obligations; and rarely does a disillusioned or cheated client seek redress for fear of public ridicule.

Their activities are monitored in the main by sceptical groups around the world, whose endeavours to promote a more rational view of the world are constantly frustrated

by self-proclaimed miracle mongers, the "divinely" inspired and the possessors of the secrets of the universe, who do not have the courage of their own convictions when it comes to the test. Under the circumstances it is little wonder that the less tolerant among us tend to dismiss them all as charlatans, frauds, cheats, parasites and con-artists, the kindest appellation one can confer being self-deluded.

The question arises therefore, are there any other avenues yet to be explored by which sceptical aims can be achieved?

Licencing mandatory.

Most members of the community who provide or sell a service are obliged by law, in the public interest, to be qualified in respect of the service offered before being given the authority to provide that service. Not so the purveyors of the paranormal, but why not? Because astrology or numerology is just a lot of harmless fun?

Because crystal/colour/aroma/water/past lives therapies are viable alternatives to tried and proven conventional medicine? Because all one needs to survive and succeed is a belief in the supernatural and faith in miracles? No rational person could fail to see where an uncritical acceptance of such beliefs has led in the past and continues to do today.

Simple to test.

It is a relatively simple matter to test those who claim to possess extraordinary powers and in most cases would only take a matter of minutes. No complicated mechanical or electrical contrivances are needed, lengthy oral or written examinations are superfluous, and the results are conclusive - you either pass or you fail, there is no in-between category.

The psychokineticists of this world could be asked to psychically bend a spoon without physically touching it; channelled entities to speak in their native tongues; sightless readers read a book in a dark room; prognosticators make a single specifically worded prediction that comes to pass, a psychic detective to find just one missing person unaided and a water diviner who doesn't have to trip over a bottle of water to find it! Why shouldn't these people claiming such extraordinary powers be subject to the same laws applicable to most other members of the community?

What I am suggesting is that the licencing of psychics, clairvoyants, and others who claim exceptional faculties should be mandatory and the purpose of this article is to garner input from readers to ascertain whether or not the proposition is viable and worth pursuing.

Proposition

This proposition was put to the National Committee for consideration but was rejected out of hand on the grounds that any testing body or licencing authority would traditionally be comprised of peers and therefore biased and not competent to judge - an *a priori* assumption with which I do not agree for an obvious reason.

Doctors, plumbers, electricians and others while they are the peers of those they test, are themselves qualified in their particular disciplines or trades whereas psychics clairvoyants and their ilk are not. Any body convened for the purpose of testing therefore would of necessity be comprised of those with qualifications appropriate to its requirements - physicists, magicians and those who have proven field experience, i.e. existing bodies constituted for exactly that purpose - sceptical groups world-wide.

Death knell for psychics or sceptics?

It could be argued that the establishment of a statutory body could sound the death knell for the Australian Skeptics Inc, again an *a priori* assumption.

Even assuming that members of a duly constituted testing board were not drawn from the ranks of sceptical groups the Australian Skeptics would still function as a source of information and informed comment. Investigative reporting in this journal represents a small proportion of its contents and is predominantly subjective comment on the observations of others - the opportunity to investigate at first hand is rare.

Licensing on the other hand would force literally hundreds if not thousands of people making extraordinary claims to put up or shut up. This is an end to a monetary offer, which no matter how large or small, has not achieved and very likely never will.

Input please.

The proposition, in my view, does merit some consideration and, with that purpose in mind, I seek the views of readers, particularly those of the legal, medical and political fraternities, to provide a more representative base on which to judge its merits. Please address comments to:

**'Licencing of Psychics'
Australian Skeptics Inc.
Box E 324, St. James, NSW 2000.**

Facilitated Communications

We had planned to publish a major article about Facilitated Communications, the controversial method by which severely handicapped people are alleged to be able to communicate, using keyboards and with assistance from other people or 'facilitators'. Unfortunately, Adam Joseph was unable to get permission from the overseas publisher of the original article in time for our deadline.

Recently, the Victorian Government withdrew funding from the organisation which promotes FC, citing the organisation's inability to meet recommended standards of operation, as the reason.

We hope to be able to bring this important story in the next issue. ■

FORUM

The “Miracle” of St Januarius

Alan Towsey

The 22 September issue of the local Italian newspaper *La Fiamma* (*The Flame*) reported that the regular “miracle” of St Januarius had duly taken place in Naples as expected on the 19th of September.

St Januarius (in Italian San Gennaro), the patron saint of Naples, was born about 272 and became Bishop of Beneventum (now Benevento) in the latter part of the third century. He was martyred about 305 at Pozzuoli for refusing to renounce his Christian faith.

According to tradition his congealed blood is contained in sealed phials which are kept in a safe in the Cathedral of Naples. The news item says that on the 19th of September each year and on the Saturday preceding the first Sunday in May the blood liquefies and the phials are then displayed in public for the following week.

The first mention of this miraculous occurrence, according to the article, goes back to 1389. I have been unable to discover the whereabouts of the blood prior to this date, nor why it was preserved in the first place, since St Januarius was not then a saint, but only a bishop - and one of many such martyrs.

It seems that the phials are brought out each year on the due dates and the liquefaction of the “blood” is witnessed by those present - whether that includes members of the congregation I do not know.

The news item states that “At 9.20 am Cardinal Michele Giordano, Archbishop of Naples, announced the liquefaction of the blood of the patron. The news was welcomed with long applause by the more than 4,000 faithful present in the Neapolitan Cathedral for the celebrations in honour of the patron”.

It seems that on this occasion the blood was found already liquefied at 8.55 when the archbishop removed the phials from the safe where they are normally kept. This was an unusual but not unknown happening, though “in most cases there is at least an hour’s wait before the blood begins to dissolve”.

According to the cardinal, “what has happened today gives the lie - if it were necessary - to those who claim to explain the miracle by earthly criteria. It seems almost that St Januarius has seen fit to reply to those who say that it is the shaking of the phials which causes the blood

to dissolve. Today there was no shaking, we opened the safe and the miracle had already taken place”.

I recall reading in the same newspaper a year or two ago that a committee of scientists, including professors from some of Italy’s most prestigious universities had been appointed to examine the “blood”. They were not permitted to break the seals and analyse the blood, but had to be content with studying it through the glass of the phials, presumably by spectroscopy. Nevertheless - not surprisingly - the committee solemnly announced that there was no doubt about it: the contents of the phials was really genuine human blood.

But if this “miracle” really occurs, then the laws of physics and chemistry so painstakingly elaborated over centuries are invalid, and modern science is a fraud and a delusion.

So, can any of the magicians and chemistry experts among the Australian Skeptics suggest how this trick is worked, or at least demonstrate it. Remember, no shaking or warming by hand! ■

A BLATANT PLUG

Sky & Space

Barry Williams

Listed among the subscribers to *the Skeptic* are many astronomers of both the professional and amateur stripe, not to mention those armchair astronomers who, like myself, avidly read every story about this fascinating science without necessarily spending a lot of time gazing through a telescope. At the Great Australian Science Show, I came across the bi-monthly magazine *Sky & Space* (formerly *Southern Astronomy*). This magazine gives a local perspective on what is going on in astronomy and space research and is full of information for the star and space buff. Of particular interest to me are two video tapes this company is promoting.

The first is *Voyager Highlights*, a compilation of the images sent to Earth by the Voyagers 1 & 2 as they transmitted astonishing pictures of Jupiter, Saturn, Uranus, Neptune and their attendant satellites. As a confirmed 'space nut', I well remember my excitement in 1979 as Voyager passed Jupiter and we saw those dazzling pictures of the Great Red Spot, and close-ups of the Galilean satellites, with terrains (or should that be Jovains?) the like of which humans had never before seen. My favourite is Io, which resembles nothing so much as a decomposing pizza or the advanced stages of a nasty venereal disease, but with that somehow beautiful volcanic eruption visible on its limb. And later the strange patterns of the Saturnian rings, far more complex than Earth-based observations had led us to believe.

The encounter at Uranus provided me with one of the small triumphs of my life. *The Australian* published a breathless account of the signals taking 90 minutes to reach Earth, having flashed across space at "480, 000 kilometres per second". It was obvious what they had done, they had translated an American story and, aware that the USA still uses miles, they had converted 'miles per second' to 'kilometres per second' by the simple multiplication of the figure by 1.6. Problem was, the conversion had already been done. My Letter to the Editor, which was published, simply said, "Congratulations! With one stroke of the pen, you have increased the speed of light by 60%. Is this a record?" I hadn't thought of that for years, but viewing this fascinating tape brought it back to me. The tape of the images from Voyager is one hour of compelling viewing.

The second tape, *Planetary Encounters*, is made up of short segments, largely computer enhance-ments of data sent back by assorted missions to Venus, Mars and the Earth and Moon system. There are some instructive animated pieces showing how the Galileo probe to Jupiter was accelerated on its way by gravitational assistance during two close fly-by's of the Earth. A poignant note is struck by reference to the launch of the by now ill-fated Mars Observer as we realise just what new insights into planetary history we will miss because of either: (a) Diabolical Martians; (b) a sinister group in NASA; (c) whatever other crackpot conspiracy theory you care to advance; or (d) a technical cock-up. Another hour to stir the juices of the space fan.

Whenever I feel depressed by confrontations with cranks who insist on selling our species short with their fantasies about interfering deities, benign or malign alien abductors, mystical influences from the stars or energies unknown to science, I am comforted by the thought that there are plenty of other people around who use their intelligence and skill to find out the facts about our universe. Taken all round, and accepting all its faults, *Homo sapiens* is not a bad old species.

While *the Skeptic* is largely concerned with exposing the fallacies of pseudoscience and paranormal claims, *Sky & Space, The Only Astronomy and Space Magazine for Australia and New Zealand*, (to give it its full title) is busy putting the positive side of scientific endeavour.

Lyle Rumble and Jonathan Nally are to be congratulated for producing an outstanding magazine. Their story complements ours and both stories are well worth telling. I am delighted to recommend both the magazine and the Deep Space video tapes to our readers.

Annual subscription to *Sky & Space* - \$30.00

Video Tapes- \$29.95 each (\$54.95 for both)

Obtainable from :

Sky & Space Publishing

80 Ebley St

Bondi Junction NSW 2022

Tel (02) 369 3344 Fax (02) 369 3366

Acupuncture

In the last two issues of *the Skeptic* there have been articles on this subject.

The general thrust of these articles was that acupuncture is an unproven technique and has possible adverse affects. The author, Dr Stephen Basser, has presented a position paper which is very informative and well researched (if the references at the end of the paper are a guide).

I formed the opinion that the 'official' acupuncture organisations were not only antagonistic to any open discussion in this field, but were to be regarded as promoting not only unproven but also possibly dangerous 'medicine'.

Imagine my surprise when I read the following article on page 2 of the national newspaper *Campus Review*, dated August 5-11, 1993:

"Acupuncture degree status

Acupuncture is moving to university degree status in NSW, with a four-year program beginning next year at the University of Technology, Sydney.

Victoria University of Technology last year became the first Australian higher education institution to offer acupuncture, previously the domain of full fee-paying private colleges.

The UTS deal results from an agreement with the Acupuncture Colleges Australia and follows a 1990 National Health and Medical Research Council report which recommended that acupuncture move into higher education.

The UTS course will include Chinese medical theory and philosophy, clinical acupuncture, needle and moxibustion skills, traditional diagnostic techniques and disease differentiation. ACA principal Dr Carole Rogers will head the new UTS college of acupuncture,

LETTERS

Letters to the editor on any topic of interest to other sceptics are welcomed.

with an initial 50 students.

A significant component of ACA courses, western health science, was taught by staff from the former Sydney College of Advanced Education from 1984 to 1990. Since 1991 UTS academic staff have taught these units."

There was no mention of an author.

This article raises so many questions about all concerned that I feel the best approach is to have Dr Basser address them.

Some questions that come to mind include:

- how can a respected CAE and two universities be involved in offering degrees in such a "discipline"? What are the prerequisites, TER etc.

- What professional recognition will result?

- Why was there no mention of this in Dr Basser's paper?

- Is the Campus News article true?

- Is the credibility of the Skeptics at risk here?

I note that Dr Basser quotes a 1989 NHMRC report, whilst *Campus News* refers to a 1990 NHMRC report.

I also note that the principal of the ACA is Dr Kerry Watson, according to *the Skeptic* Vol 13, No 3, p 8 but is Dr Carole Rogers according to the *Campus News* article.

I would be pleased to read a comprehensive response, as I am now confused as to whether there is anything to acupuncture.

**Allan Milgate
University of Newcastle**

Dr Stephen Basser responds

Allan Milgate's letter raises a number of questions.

He asks whether the Australian Skeptics' credibility is at risk because acupuncture is moving to university degree status next year in NSW. The answer is certainly not, but I would not so confidently say the same of the institution involved.

One of the most important, and most overlooked, issues in the discussion on acupuncture is the need to differentiate between non-specific needling and the theories of traditional Chinese acupuncture.

That is, is there any objective evidence to support the view that the analgesic effect observed in patients who have received needling, is dependent upon inserting the needles at specific acupuncture points, along historically described lines, or 'meridians'?

What surprised me, as I looked into the subject, was how many researchers failed to recognise the importance of this. Studies would be performed in which patients were needled according to the traditional theory, and if an analgesic effect was obtained then the conclusion reached was that acupuncture - traditional Chinese acupuncture - was a valid technique.

This conclusion cannot be supported unless specific needling has been compared to non-specific needling, and it seems extraordinary that such a fundamental error could be made by so many researchers. The studies that have compared the two methods have not found a difference in effect, and therefore I believe that the fundamental conclusion of my paper stands.

Many of the papers that are quoted as being supportive of acupuncture

do not draw this distinction, and many also suffer from poor methodology and/or small patient numbers. Those that are methodologically sound have certainly served to add to our knowledge of counter-irritants, but that is all. They cannot be used to support the key concepts of traditional Chinese acupuncture.

If scientific researchers can make such fundamental errors then is it so surprising that educational institutions are offering courses? I do not know the content of the course Allan mentions, and would be interested in any details. If Acupuncture Colleges Australia has been responsible for the curriculum then it may not be that the content accurately reflects the current scientific status of this modality, but until I have more details I cannot assert this with confidence.

Support for traditional Chinese acupuncture is a philosophical position, not a scientific one - more a matter of faith than evidence. The move into higher education is attractive to proponents of 'alternative' therapies because if achieved it confers a measure of credibility in the eyes of the public.

Once a course is accepted it is difficult to convince others that the subject matter is of questionable scientific validity - particularly if the pseudoscientific aspects are well hidden amongst teaching of the standard natural sciences. This has worked well for the chiropractors, who generally deflect any discussion about subluxations (the fundamental basis of the scientific objection to chiropractic), preferring, of course, to talk about the level of teaching in basic sciences.

Entry into higher education institutions and registration are the primary means by which pseudoscientific modalities are

trying to bypass the need to actually provide evidence of their efficacy. I believe that this is inappropriate, and that we must not allow the cart to be placed before the horse.

Would we stand by so complicitly if creationism was being introduced at a university level, with an attempt to 'hide' its underlying non-scientific foundation by a few weeks of lectures in basic geology and astronomy?

With regard to Allan's other queries - the NHMRC report is guilty of the same oversight mentioned earlier, in that it failed to properly address the issue of non-specific versus specific needling. It certainly did not endorse acupuncture, and recommended against registration, but I would caution against assuming that because of the source that this is a definitive paper on the subject.

As to who is principal of the ACA - I can only report how the letter I received was signed. Perhaps there has been a changing of the guard since then - I'm not really sure that this matters all that much.

**(Dr) Stephen Basser
Australian Council on Science
and Health**

Answers

In response to some questions raised in recent issues:

1. Bombastic (News and Views, Vol 13, No 3) derives from the Greek word bombax, meaning silk, hence bombazine and bombast meaning wild cotton or cotton padding and thence by transfer to other sorts of padding (mid 16th century).

2. If I had the name Theophrastus Bombastus von Hohenheim, I would change it too!

3. In answer to Dr William Grey (*Letters*, Vol 13, No 3), to the end of

the 1992 English season, Border had won 35 of his 67 tosses as captain, a good statistical average. (Thank you Bill Frindall.) You will have to provide the answers for the two subsequent seasons. The best Australian record seems to be MA Noble's 11 from 15.

4. The English 'Devil's Number' is 111, the so-called Nelson. Out of the nearly 420 centuries scored in England-Australia tests, dismissal at this score has been achieved no fewer than (roll of drums) ...4 (four) times. To wit and viz:

Edrich WJ
Graveney TM
Chappell IM
Woodfull WM

Is this a record? Not really. The entire Australian team has been dismissed for just this score on at least four occasions, twice in successive tests. Eleven Australians (including Bradman) have scored 112 against England. For England against Australia (let's not go overboard about this) the unluckiest score (over 100) is 113 with seven dismissals (Rev David Sheppard 2 out of 2. Is his boss trying to tell him something?) The next unluckiest, with five dismissals each are 100, 101, 102, 104, 109, 117 and 137. For scores between 100 and 138, the luckiest are 108 and 121. Nobody dismissed at all. And there is much more where this came from!

**Roderick Shire
Neutral Bay NSW**

Relocating?

Let us know your
new address.
the Skeptic
Dont't leave home
without it!

Religion

Mark Lawson's "Scientology: A Chance Encounter" (Vol 13, No 3) was amusing but it's a pity he only had room to refer to "Bare Faced Messiah", Russell Miller's book on L Ron Hubbard, rather than quote from it. I almost wet myself reading this gem from Miller's book:

"In one of his innumerable past lives, on another planet, Hubbard had manufactured steel humanoids and sold them to the Thetans, the local rulers, on hire purchase, if they didn't have the cash. He had also been Tamburlane's wife. He had hidden money in a statue of a horse in Italy, 'but that son-of-a-bitch Machiavelli stole it from me'. Hubbard also claimed to have visited heaven twice, 43 trillion and 42 trillion years before. The second time, Hubbard said, he had found it a lot shabbier."

If Hubbard had not existed, Woody Allen or Monty Python would have had to invent him. We get angry at the gullibility of those sucked in by this garbage, but you might as well get a laugh out of it too. Or should you? In Harry Edwards' "Dear Secret Diary" and "Travels of a Skeptic" (Vol 13, No 3), it is refreshing to see someone taking a shot at the 'mainstream' religions, in this case the Catholic Church in the Philippines. We spend so much time exposing the dangerous nonsense of the so-called 'cults' that we often let the older, more traditional religions (older cults?) off the hook. Is it any less irrational to believe in the powers of Lourdes holy water than in quartz crystals or witchdoctors?

When Rafe Champion ("Cracking the Dogmatic Frame of Thought", Vol 13, No 3) complains about the persistence of superstition in the age

of science and reason, he refers to cults and sects 'on the fringe of organised religion'. This at first seems reasonable and we think of the dangerous and deadly outcomes of the Jonestown mass suicide and Waco tragedy. They may have occurred a long time ago, but were the Massada events in Judaism's history, the Spanish Inquisition in Catholicism's or the Calvinist persecutions in Protestantism's any less tragic or reprehensible?

What about recent history? The Catholic Church did not actually order the inhabitants of the Italian village of Pescara to gaze at the sun in March 1988, in expectation of the appearance of the Virgin Mary, but it must accept some responsibility for the hundreds of villagers who damaged their corneas or developed eye lesions - and I don't know if this is tragic or comic or both, but just for a change the VM did not appear. I suppose this makes it doubly tragic? But if I'm allowed to laugh at Hubbard, why not at the village idiots of Pescara?

And here we are in Australia, about to have our saint-free record tarnished with the Vatican's beatification of Mother Mary McKillop, this being the first step in the process of declaring her a saint.

McKillop might deserve posthumous praise for her work with the poor and ill-educated, but sainthood will only be bestowed upon her precisely because she performed a 'miracle'. It is claimed that a woman with leukaemia was 'cured' after Mother McKillop's 'intercession'. In other words, she was what we sceptics refer to derisively as a 'faith healer', one of those whom we normally accuse of encouraging superstition and exploiting the gullible ... but only if they belong to 'a cult on the fringe

of organised religion'. Where are our sceptical priorities? It's far less harmful to 'read the stars' than it is to gaze at the sun until you go blind? I just don't know whether to laugh or cry.

**Raymond Watson
North Melbourne VIC**

There are a few items in this issue that might set your mind at rest Ray. Miracles are fair game because they make claims that are testable and, indeed, the very concept of a miracle is one which I find impossible to reconcile with the world that we know, as I make clear in my article on page 10. There are many other cases too.

However, the policy of Australian Skeptics is not to investigate religion *per se*, and I invite you to read my article in Vol 10, No 3 for some of the reasons why.

I have been asked by the media for my views on the recent Papal encyclical, especially as it relates to human reproduction. My own view is that it is an appalling intrusion into the private affairs of individuals and is probably extremely dangerous for the planet as well.

But Australian Skeptics has no views on the matter as it does not fall within our aim of investigating paranormal and pseudoscientific claims.

In any authoritarian system, such as the Catholic church, it is perfectly acceptable (in their own terms) for those in authority to make rules that are binding on members of that organisation. That is not paranormal, it is all too normal. Members who do not agree do have a choice; they can always leave. They could also try to influence the election of the next Pope, but I wouldn't rate their chances too highly. **Ed**

Fatima

I was fascinated by the letter in *the Skeptic* (Vol 13, No 3) written by a Pope, or should I say *the* Pope, of Ashwood VIC. As that was not the last known address of *the* Pope, he may well be an impostor!

Assuming his sincerity, your correspondent poses some questions about Fatima, whom I thought was the wife of Farouk, the heavyweight champion of Egypt. But no, your correspondent asks about 70,000 witnesses at Fatima in southern Portugal, who, it is claimed, saw the Sun loop the loop and then selectively bathe the crowd in colours of the spectrum, such as blue and yellow, for example. They also saw the Sun spin on its axis, which is not really remarkable as it does that constantly.

Strange are the activities of the Sun vis a vis religion. When Jesus was crucified, three of the Gospellers said the Sun went dark from the sixth hour to the ninth. The fourth, John, did not see fit to report such a trifling matter and speaks of Jesus seeing his mother in the watching crowd ... in the dark?

However, I wouldn't count on the alleged 70,000 providing witnesses today. Of course, any reliable witness would need to be 80 plus today to have been old enough at the time of the polychrome event (1917) to remember it. And then, these superannuated witnesses of these supernatural events have the annoying habit of disappearing when we need them.

Remember that Matthew said, in his account of the Resurrection (Chap 27 v 52-53) that many of the previously dead saints were raised up to life and rose from their graves at the same time as Jesus. Matt said that

'many' people in Jerusalem met up with these bivital people. So why do we not hear another single word about them from Matthew or his fellow fiction writers? Was the mass raising from the dead too trivial to mention again, or was it too crass a fabrication to support? And where did they go to?

Then, come to think of it, Joshua (Chap 10, vv 12-13) held up the progress of the Sun and Moon while he got on with a bit of fair dinkum genocide. Don't think you will get far with that one either.

I wish the Pope of Ashwood good luck re Fatima. But if you do find any 'witnesses', please remember the perjury of Jim and Tammy Bakker and of the awful Swaggart. Awfully hard to get at the Truth.

Yours faithfully (so to speak)

Clive Coogan
Mt Eliza VIC

Popper (Again)

So the excellent Rafe Champion has given us yet another essay (Vol 13, No 3). He now wants to save us with the ghost of Bartley, Son of Popper. Well this old positivist does not want to be saved by the likes of Bartley.

I first met Bartley in *Encounter* magazine in January 1986, where he disgraced himself in an exchange with Stove. It is a rule in philosophical debate that you address the issue, and not, for example, evade it by attacking your opponent's wife as Feyerabend is supposed to have done. Bartley evaded Stove's points by raising irrelevant non-issues. I did not know so many red herrings could be squeezed into one tiny tin. He self-importantly told us that Wittgenstein did not really wave a poker at Popper because the Russell Archives prove that Bertie Russell was there and

Bertie did not see the incident. Moreover, Popper would not lie. Who cares? He insanely said that epistemology is a "sort of branch of economics" and denounced the senate of a Californian university for dropping merit awards. In a paranoid mode he then complained that Popperites were being excluded from academic posts, that philosophy departments are unfairly dominated by certain guilds, and that Stove was a member of one of these guilds. What a turkey!

As for the infinite regress in the logic of justification, which Rafe sees as a curse on all of old fashioned types, has anyone seen a working scientist stopped in his tracks by this bogey? If it does not hinder the most successful intellectual enterprise of our race then it is a pseudo-problem of no practical consequence. For those hung up on the justification of rationality, see the fine article on just this subject in a recent issue of *Informal Logic*. I found Rafe's article obscure. He does not fully define the dogmatic frame of mind, nor justificationism. He seems to confuse authoritative and authoritarian. Dogmatism and authoritarianism are measurable system variables in personality and are scientifically described in psychology. Is he using these terms in the objective, scientific sense or in the popular pejorative sense?

Graham Preston continues to have a hang up on free will. "Will" is not a scientific concept any more than "soul" is. Can one logically mix this stuff in the same argument with talk of physical and chemical laws? If he uses the physical sciences to understand the world then why is he not compelled to use the behavioural and neuro-sciences to understand the nature of his own brain? He is stuck in the prescientific conceptual world

of folk psychology. I respectfully commend to him Dennett's *Elbow Room: The Varieties of Free Will Worth Having*, which puts a broom through the whole topic.

**John Snowden
Tarragindi QLD**

And Again

In *the Skeptic*, (Vol 13, No 3, p 53). Rafe Champion accuses me of misrepresenting Popper on falsification. Champion wrote: "Contrary to Huber, Popper did not offer falsification as a solution to the problem of induction ... "

Contrary to Champion, Popper wrote: "Of course I can err, but I think I have solved an important philosophical problem: the problem of induction" ("Conjectural Knowledge: My Solution of the Problem of Induction," *Revue internationale de philosophie*, 25, no. 95-6, 1971, fasc. 1-2). Please note the title of the paper. In a 1984 footnote he added: "I began work on the problem of induction in 1923 and found the solution around 1927." (*Objective Erkenntnis*. Hamburg: Hoffmann und Campe, 1984, p. 1). How could one present clearer evidence that Popper claimed over a period of 57 years (and to the best of my knowledge still claims) to have solved the problem of induction? Popper's advocates need to come to grips with what Popper actually says.

Leaving Popper behind Champion writes: "Falsification, as a criterion of demarcation, offers a viable alternative to the criterion of verification..." Here I applaud him. However, what I attempted to indicate was that falsification and verification are logically equivalent by a trivial transformation. So of course, falsification is a viable

alternative to verification and vice versa.

My question was and still is: What is Popper's contribution here? What did he show us which we have not learned already from the works of David Hume and other earlier philosophers? I don't accuse Popper of being wrong (at least on this point), rather I suggest that he is being trivial. References to Popper's criticism of the Positivists are irrelevant in this context. Any objections that an astrologer may make against creationism still don't prove that astrology is correct.

Perhaps I might close with an anecdote from the Austrian physicist and philosopher, Ludwig Boltzmann, which seems to me to better illustrate the problem of the infinite regression in induction than do Sir Karl's *Collected Papers*.

When I was in high school my late brother, who often tried to persuade me of the preposterousness of my ideal of a philosophy which began by clearly defining every concept, finally succeeded through the following scheme: In one lecture a philosophical text (I think one from Hume) was praised as being especially incisive. Accompanied by my brother I immediately looked for it in the library. It was only to be had in the English original. I was disappointed because I didn't understand a word of English, but my brother immediately cut in: "If the text does what you expect, its language cannot matter, because anyway any word must be defined clearly before it is used." (Ludwig Boltzmann, "über die Frage nach der objektiven Existenz der Dinge in der unbelebten Natur," in *Populäre Schriften*. Leipzig: Johann Ambrosius Barth, 1905.)

As a postscript might I address James Marchant's (p 55). request for

information on parapsychology? The catalogue of Prometheus Books, (Box 703, Buffalo NY 14226-0703), might help. Especially good is CEM. Hansel's *The Search for Psychic Power*. Concerning the question as to how such nonsense gets into encyclopaedias, Lewis Jones presents an interesting hypothesis in his article, "A Tabloid Encyclopaedia? The 'Americana' disappoints," (*Skeptical Inquirer* Vol 16(4), Summer 1992).

Also Damian Pope asks for information about Fatima. There is an excellent book by Josef Hanauer: *Fatima, Erscheinungen und Botschaften*. (Bad Honnef: Bock und Herrchen, 1980) Unfortunately at the moment it's only available in German. (If an Australian publisher should be interested, the author can be contacted through me.)

**Gerald Huber
GWUP
Germany**

Rafe Champion responds

I am sorry that Gerald Huber persists with his confused and confusing comments. Of course Popper claimed that he solved the problem of induction, my point was that falsification was not the solution, instead falsification was his solution to the problem of demarcation between science and non-science.

John Snowden refers to professional criticism of Popper, naming David Stove, but as Bern Gandy explained in his article (*Forum* Vol 13, No 2), Stove's commentary on Popper is wide of the mark. The passage on suspending belief which Snowden found on p 87 of Popper's *Unended Quest* contains concerns the futile search for a method of induction which will provide justified beliefs. In view of

the failure of such methods, Popper points out that we would do well to steer clear of beliefs in favour of critical preferences, formed in the light of evidence and arguments. This would appear to be the epitome of scepticism as most of us understand it.

Science has not been stopped by the problem of the infinite regress because scientists tend to be influenced by Popper rather than the positivists and other schools of philosophy. Popper has been championed by a raft of Nobel laureates including Medawar, Eccles and Monod. His influence spread especially widely among an older generation of scientists in this part of the world because he spent the war years in New Zealand.

Positivism and the quest for justification (in positivist terms) did not stop science, but they would have done if enough scientists had tried to practice what the positivists preached. Outside science the picture is less rosy because there is a damaging legacy of positivism in philosophy and areas where fashions in philosophy are influential, such as the humanities and sociology. These disciplines are being ravaged by the so-called deconstructionists or post-modernists who have occupied the vacuum left by the collapse of the various 'justified belief' schools of thought. Followers of these supposedly new ideas proceed from the true premise (no theory can achieve certainty) to the false conclusion (there is no way to form critical preferences between theories). The ideas of Popper and Bartley provide a little-recognised antidote to this lunacy in the humanities and social sciences which threatens to do more harm than all the creationists, palm readers and water diviners put together. **RC**

Parapsychology

James Marchant (*Letters*, Vol 13, No 3) asked for comments on the Funk and Wagnall's New Encyclopedia entries regarding the medium Daniel Dunglass Home and the researcher JB Rhine.

Without delving deeply into these issues, critics of Home would argue that, firstly, not all of his seances were held in full light, and that, secondly, he did not expose his claims to investigation (most of his seances were private and uncontrolled). It would be more correct to say that Home was never caught red-handed in any chicanery, but he was regarded with deep suspicion and it would be interesting to find out today whether the various spiritualist societies still claim him as a leading light of their cause. Some interesting reading, ranging from the impartial to the heavily critical, can be found in *Heyday of a Wizard* (Jean Burton, Harrap & Co, 1949), *Mediums of the 15th Century* (originally *Modern Spiritualism*, Frank Podmore, University Books, 1963) and *A Magician Among the Spirits* (Harry Houdini, Argo Press, 1972). A close examination of the susceptibility of Sir William Crookes to deception can be found in *The Spiritualists* (Trevor Hall, Helix Press, 1963. Reprinted as *The Medium and the Scientist*, Prometheus Books, 1984).

The work of JB Rhine has come under considerable criticism; the most concise review of his work and associated early experiments in ESP can be found in *ESP - A Scientific Evaluation* (CEM Hansel, Macgibbon & Kee, 1966) and updated versions, *ESP and Parapsychology - A Critical Re-evaluation* (Prometheus Books,

1980) and *The Search for Psychic Power* (Prometheus Books, 1989).

In short, although both these men have been prominent and much debated cases, I suspect that few people today would be prepared to mount a spirited defence of their careers.

Kent Blackmore
Hornsby NSW

Cults

Under the topic Convention Notes in the last issue, you reported on the three young women who described their involvement in various cults. You wrote that the woman who worked at the Scientology "Celebrity Centre" in London was of particular interest but I think you were side tracked by her bubbly personality and her infectious smile. My complete admiration went to the much quieter woman who had the courage to stand at the front of a lecture theatre packed with Skeptics and admit that she had believed how she was an angel in the "Extraterrestrial Earth Mission" and had come to help save the planet. Given my liking for comedy shows, it was difficult not to laugh uproariously at such a statement, but her belief had been very real to her and had disrupted her life as much as any other cult with a more plausible set of beliefs. As they said recently on Four Corners, normal people join cults, not just those who are weak minded or susceptible.

Brian Robson
Bondi NSW

**In the Beginning -
Was What?**

(see inside back cover)

Cosmology

As a layman in the fields of mathematics, physics and cosmology I expected, and, indeed, welcome criticism of my review of *The Matter Myth* (Vol 13, No 1), being always eager to learn from experts in fields other than my own (one cannot be a specialist in everything!) and I am grateful to Andrew Parle and Hans Wieler (Vol 13, No 2) for answering some of my questions and clearing up some issues for me.

However, there seems to have been at least one slight misunderstanding. I did not say that I find "the idea of measuring a billionth of a second incredible". I know we have instruments to measure such things. My question, still unanswered, was simply: How is it done? How do these instruments work? How do we know, for example, that the radiation frequency of a caesium atom is 9, 192, 631,770 cycles per second? How is this registered? Does it flash up on a screen as that exact figure? Would one of you specialists in that field try to explain the procedure in understandable terms as briefly as possible for us laymen?

I am also well aware that imaginary numbers, as mental concepts, are useful tools for working out complex calculations, such as in the field of electrical phenomena (this is stated in Lancelot Hogben's *Mathematics for the Million*, first published in the '30s, for example), but if the square root of minus 2 is not really imaginary, would Hans or Andrew please set it out for me in definite figures, so that I can square it on a calculator and get back at least close to -2?

Regarding the nature of the Universe, I am familiar with the oft quoted analogy of the surface of a

sphere - it is in *The Matter Myth*, for example - but this overlooks the fact that the surface of a sphere is itself a boundary. And our imaginary space journey is not on the 'surface' of the Universe, but through it, and we come back eventually to the point we started from because, according to the Theory of Relativity, space is curved. But let us now, in one of those famous 'thought experiments' travel in a mathematician's imaginary absolutely straight line. In that case, if the Universe is finite, we must eventually come out of it - into what? Another universe? Infinite space? If not, then you fellows are only playing with words, distorting their normally accepted meanings, and negating the very principles of the logic by which you arrive at your fantastic conclusions, for, since scientists purportedly work by logic, if their conclusions don't make sense, then, as I said in my review, either their premises are wrong, or their reasoning, or both.

I do not go along with the quasi-religious idea that our 'limited' minds can never really grasp the ultimate complexity of the Universe. If that is so, why do we bother to investigate it? I believe our minds are limited only by the Universe from which they sprang, and that ultimately we will unravel all its secrets.

I am not alone, however, in being sceptical of certain aspects of modern physics. I note from recent reading on the history of mathematics (especially on whether mathematics was invented or discovered) that my views on some aspects of mathematics have been, and apparently still are, shared, at least in part, by some very distinguished mathematicians. Professor Geoffrey Burbidge, professor of physics at the University of California, criticising the Big Bang theory in the February

1992 issue of *Scientific American*, mentions that when Halton C Arp several years ago suggested an alternative explanation for the red shift, other than a rapidly receding galaxy (I think from memory it had something to do with the effects of gravity), he was "denied telescope time at Mt Palomar and Wilson observatories because his observing programme had found and continued to find evidence contrary to standard cosmology."

A few other dissident astronomers (WG Tifft and WJ Cocke [University of Arizona] BNG Guthrie and WM Napier [Royal Observatory, Edinburgh], for example) do not accept that red shifts are simply caused by the velocity of a receding galaxy, but think they may be due to some unrecognised kind of quantum effect (See *Scientific American*, Dec 92, pp 19-20). Eric J Lerner has recently published a (in my view well argued) book entitled *The Big Bang Never Happened* (Simon & Schuster, London 1992), quoting recent discoveries and research by scientists (notably Hannes Alfvén) in the field of plasma cosmology. (He doesn't think much of some of Paul Davies' ideas either.)

And in the April 1993 issue of *Scientific American* a letter writer, querying the reality of the Big Bang and black holes, refers scathingly to "bird brain professors of physics".

It seems that in my scepticism of some of modern physics I am in respectable company!

Alan Towsey
Tahmoor NSW

**What Happened -
In the Beginning?**

(see inside back cover)

Martians

The choice of causes for the loss of the Mars Observer are: (1) NASA belongs to a conspiracy to conceal the truth about what is on the Martian surface; (2) the Martians shot it down; (3) somebody messed up.

The Face on Mars has been in the news lately. See those zits on the chin? They are whole pixels. And it's strange how NASA's image enhancement won't bring out the detail, but an elementary sounding technique called SPIT, invented by two NASA engineers (well, "at the time [1979] contracted to NASA", "employed...adjacent to NASA", and "obtained permission to utilise NASA equipment during off-shift hours") shows the detail better.

With the vast amount of data available, covering the surface of the whole planet, and freedom to perform image processing, it is no surprise that there is a face—especially at the limit of detection, as seems to be required for UFO and similar phenomena. But how do we know this is the real face? Indeed, there are alternative Martian faces available, including those of Kermit the Frog and Senator Edward Kennedy. There is also a convincing likeness of Saddam Hussein's face on the Moon, which is a good place for it.

But wouldn't the Martians construct one of their own faces, not one of ours? They might resemble Picasso's *Weeping Woman* or Bronwyn Bishop. Imagine the Martian astronomers excitedly looking at Europe and asking themselves "Why would the Earthlings make a country in the shape of a boot?" Then they look at Tasmania...

(Dr) Steve Roberts
Lower Templestowe VIC

Magnetic Fields

I don't know where Harry Edwards got his information from about the Earth's magnetic field (*the Skeptic* Vol 13, No 3), but it certainly doesn't agree with the sources at my disposal.

Harry says, "The Earth's magnetic field fluctuates from maximum to zero over a period of 150,000 years as its polarity reverses ... in the year 4000 it will be zero again exposing us over a period of 500 years to the possibility of penetrating radiation from ... the Sun."

The Time-Life book, *The Third Planet*, 1990 says (p 43) "... researchers have ... discovered that Earth's magnetic pole has flipped between north and south at irregular intervals at least nine times in the last 3.6 million years. The scientists do not know why the Earth's polarity reverses this way - or when it will happen again."

This is borne out by Nigel Calder's *Timescale* (Chatto & Windus, 1983) (p 252), where a diagram shows the present magnetic field to have existed for the past 730,000 years, preceded by a reversal lasting about 114,000 years, then a short 'normal' period of about 76,000 years (the Jaramillo), then a reversal lasting about 760,000 years, and so on at wildly fluctuating intervals back to about 5.3 million years ago. The text says at least 177 switches have occurred over the past 85 million years. "During a reversal the magnetic poles can vacillate, 'flipping' several times between the hemispheres in the course of a thousand years or so, before settling down. A vacillation that was a failed reversal occurred 33,000 years ago (Lake Mungo event)."

Does Harry have access to new discoveries that I have not heard about?

Alan Towsey
Tahmoor NSW

Harry Edwards responds.

Don't be so pedantic Alan, all three sources agree that the Earth's magnetic field fluctuates, they only differ on the frequency and duration. What's a few hundred thousand years between friends anyhow?

Barry Williams asks:

If anyone knows where Harry gets his information from, will they please let me know. I suspect he channels Einstein (that's Tarquin Einstein the renowned deconstructed poet).

A Quibble

Sir! I am appalled! How is *the Skeptic* to retain its reputation as 'a rather scholarly magazine' (More Australian Encounters, Keith Smith), if you allow blatant errors to be published?

In her article "Kinesiology on the Wireless" (Vol 13, No 3), Annie Warburton describes "Chuck Connors at the beginning of Rifleman, epaulettes ripped off, sword broken over the captain's knee, slowly drummed out of the fort".

That, Sir and Madam, was the beginning of *Branded*.

And it's *The Rifleman*.

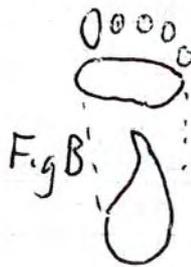
Allan Lang
Colonel Light Gardens SA

The End is Nigh!
Turn to page 54 for
In The Beginning

Foot Note

A few weeks ago I saw something at Glebe Market that I wish to pass on to readers of the Skeptic.

I was running my Space and Astronomy Poster stall when I noticed a slightly built young woman who was being massaged at the next stall. Her feet were quite interesting (she also had a very nice smile) in that the underside of them had a bridge between heel and toes that would have made an impression of being splayed outwards and then back to the toes as in the drawing A. Drawing B is of my own foot, a 'natural' foot which takes a size 9EEE.



From above, her feet didn't appear to be much out of the ordinary and the structure might have been explained by the arch of the foot being just slightly off the vertical. I pointed out the shape of the woman's foot to the bloke doing the massage and he agreed that in his years of experience he hadn't seen anything like it.

Now to the intriguing part. We spoke to the young woman and she

said that she had one grandparent from Nepal. With a little imagination you could see her footprints in the snow as being just like the classical 'Yeti' track, even to the self-validating feature of having been splayed out by great mass, whereas it could just as easily been the tracks of a yakmaid returning from milking the family yak, and being melted a little by the rising sun.

If we have any foot doctors or geneticists out there, they might care to reflect on this matter, as, if she had these feet through one Nepalese grandparent, the genes for this must be dominant among the Nepalese gene pool, or alternatively random among the Australian (Anglo) gene pool.

Garry Dalrymple
North Bexley NSW

Foot Rot

I took this photograph of what is clearly the imprint of a human right shoe, size 13 (American), heel and all!. The problem is it is embedded (as if seared when the rock was molten) in an igneous rock geologists claim is 2400 million years from

Sudbury, Ontario, Canada! This would appear to refute the so-called "age-dating" techniques used by these "scientists". Clearly, the earth is not 4.6 billion years old but a mere 6000.

What is most annoying is the lack of interest shown by so-called "mainstream" scientists. I took this photograph to Professor Ian R. Plimer of the University of Melbourne's School of Earth Sciences (one of your members). He appeared less than enthusiastic, said "codswallop" and in fact referred to me as a "snake oil merchant". Needless to say legal action is pending. Dr. David Peck of Laurentian University described the mantrack as "country rock incorporated into the magma as it ascended". Oh, yeah! So how come this supposed country rock is nowhere to be found now?

Other scientists were more helpful. The renowned scientist Ed Anguish and his colleague, the famous Scandinavian geologist Dr. Niels Langwen saw it for what it was and proclaimed that this was indeed "Sudbury Man".

This, of course, isn't the first time mantracks have been described.



Numerous precedents exist, for example the Meister find in the Wheeler Shale, the Paluxy tracks of Texas and so on. Each of these important discoveries have been pooh-pooed by the geologists, for example the Paluxy tracks were dismissed as dinosaurs footprints. Don't try to tell me this shod footprint is dinosaurial because dinosaurs didn't wear shoes!

Sadly I was unable to recover a sample of the footprint due to being abducted by a group of Kurdish rebels and I can't remember the exact location because they did something to my brain but I saw it and that's good enough for me!

References

Burdick, C, 1983. Dinosaur and human footprints side-by-side. Bible-Science Newsletter, v. 18, no. 2, p. 3-5.
Meister, W. J., Sr., 1968. Discovery of trilobite fossils in shod footprint in "Trilobite Beds" -A Cambrian Formation, Antelope Springs, Utah. Creation Research Society Quarterly, v. 5, no. 2, p. 97-102.

**(Rev Dr) Shane Reeves, BSc
(Hons), MSc, Dip Ed,
DD (World Christianity
Ministries, Box 8041 Fresno,
California 93747 USA)
University of Melbourne**

Not that we'd doubt you or anything Your Reverence, but have you ever considered the damage that can be done to a young boy's brain by being located in a University which is subjected to the malign influences of a certain Prof Ivan Plimsol? **ED**

About our Authors

Kathy Butler is a medical scientist, geneticist and member of the Victorian committee. She modestly claims to be the prettiest member of the team on the *Liars Cub* radio. Adam Joseph disputes this.

Noel Bryning is a young octogenarian philosopher-savant with a quarter of a century of experience in teaching Art, English, Maths, etc to all levels and ethnic types including aboriginal children at Groote Eylandt.

Harry Edwards is an elderly sexagenarian, with the accent on the *age*, although he deludes himself that it should be on the preceding syllable.

Dr Colin Groves is an anthropologist of indeterminate age (possibly palaeolithic) and works at ANU.

Adam Joseph is President of the Victorian Branch and reads the *Melbourne Age*.

Mark Kriewald is a young contributor who lives in Brisbane. He works in public relations.

David Lewis is a non-smoking teacher from Ipswich. His age is irrelevant to his contribution.

Michael Morris is a statistician (of average, mean or modal age) who works for a market research company in Sydney.

John Snowden is, we think, associated with Queensland Railways. If so, he probably hankers for the return of the Age of Steam. If not, he should.

Alan Towsey is a retired headmaster and linguist who lives in the Southern Highlands of NSW. He admits to being in the 'sere and grey'.

Sir Jim R Wallaby is the doyen of New Age thinkers (or do we mean scourge?).

Dr Tony Wheeler is a science teacher in Central Queensland. We would not be at all surprised, in this day and age, if his application is successful.

Barry Williams is ageless, but to look at him, you wouldn't think so.

In the Beginning?

To find out,

Turn the page!

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What to do? We decided that it would not be too difficult to transcribe all of the major articles from those issues, together with relevant news items and correspondence, and produce a book that would be a lasting memento of those early years. We estimated that the process would take only a couple of months.

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