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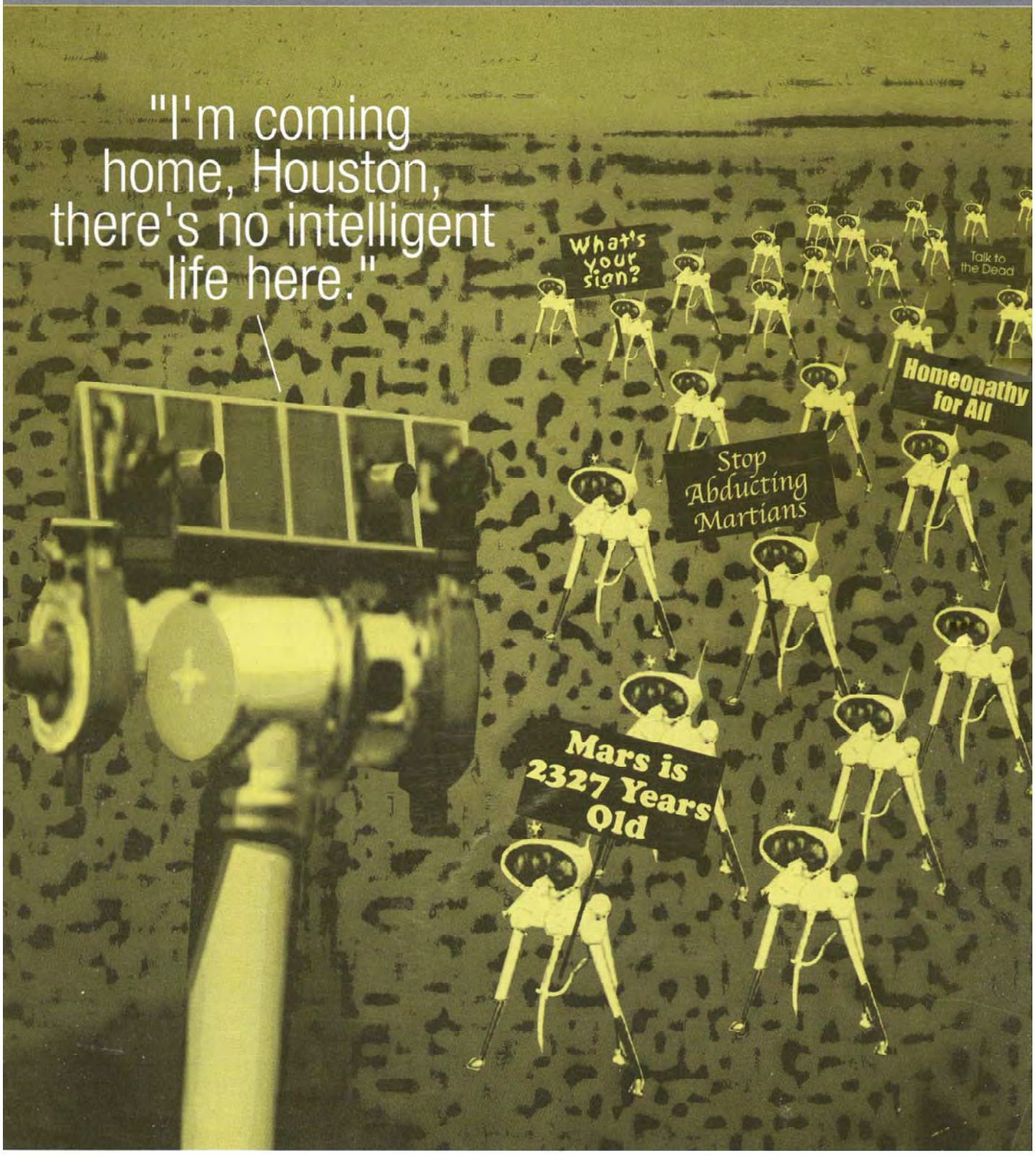

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Editor
Barry Williams

Contributing Editors
Tim Mendham
Steve Roberts

Technology Consultant
Richard Saunders

Chief Investigator
Bob Nixon

All correspondence to:
Australian Skeptics Inc
PO Box 268
Roseville NSW 2069
Australia
(ABN 90 613 095 379)

Contact Details
Tel: (02) 9417 2071
Fax: (02) 9417 7930
new e-mail: skeptics@bdsn.com.au

Web Pages
Australian Skeptics
www.skeptics.com.au
No Answers in Genesis
http://home.austarnet.com.au/stear/default.htm

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Skeptics around Australia

New South Wales
Australian Skeptics Inc
PO Box 268
Roseville NSW 2069
Tel: (02) 9417 2071
Fax: (02) 9417 7930
skeptics@bdsn.com.au

Hunter Skeptics
PO Box 166
Waratah NSW 2298
Tel: (02) 4957 8666.
Fax: (02) 4952 6442

Victoria
Australian Skeptics (Vic) Inc
GPO Box 5166AA
Melbourne VIC 3001
Tel: 1 800 666 996
Fax: 03 9531 6705
contact@skeptics.com.au

ACT
Canberra Skeptics
PO Box 555
Civic Square ACT 2608
act@skeptics.com.au

Queensland
Australian Skeptics (Qld)
PO Box 6454
Fairfield Gardens QLD 4103
Tel: (07) 3255 0499
qskeptic@uq.net.au

Qskeptics eGroup
(To subscribe send blank message to:
qskeptics-subscribe@yahoogroups.com)

Gold Coast Skeptics
PO Box 8348
GCMC Bundall QLD 4217
Tel: (07) 5593 1882
Fax: (07) 5593 2776
LMDERRICK@bigpond.com

South Australia
Skeptics SA
PO Box 377
Rundle Mall SA 5000
Tel: (08) 8272 5881
Fax: (08) 8272 5881
laurie_eddie@senet.com.au

Western Australia
WA Skeptics
22 Esperance Street
East Victoria Park WA 6101
Tel: (08) 9448 8458
wa.skeptics@australiamail.com

Tasmania
Australian Skeptics in Tasmania
PO Box 582
North Hobart TAS 7000.
Tel: (03) 6234 1458
sharples@netspace.net.au

Northern Territory
Darwin Skeptics
PO Box 809
Sanderson NT 0812
Tel: (08) 8932 2194
Fax: (08) 8932 7553
dwnskeptic@ais.net.au

Borderline Skeptics
PO Box 17
Mitta Mitta VIC 3701
Tel: (02) 6072 3632
skeptics@wombatgully.com.au

Let This Be a Warning...

So said Acting Justice Peter Newman, in sentencing a naturopath to five years imprisonment for manslaughter, in the NSW Supreme Court sitting in Newcastle, on February 13 2004. The Judge warned other alternative practitioners that the 'full weight of the law' would fall on them if tragedy followed their treatment of people. He also said that he was amazed that unqualified people were allowed to represent themselves as healers.

After a nine-day trial in August 2003, Reginald Harold Fenn, 74, a naturopath from Raymond Terrace, had been convicted of the unlawful killing of Mitchell James Little in September 1999. As Fenn was at present in hospital, suffering from a cancer of the skull and was unlikely to be able to be fit to serve a term of imprisonment, the Judge suspended his sentence.

This case has been a tragedy from the start. In September 1999, Mitchell Little was born with a 'critical aortic stenosis', a heart defect that can only be treated by surgery. While no such surgery can be guaranteed to succeed in newly born infants, surgeons estimated it as having a 95% chance of success. Cardiac surgery was scheduled for the baby, however the parents then consulted Fenn, who had treated them in the past.

Using a 'Mora machine', Fenn claimed not only to have made a different diagnosis of the condition, but by using the machine and some herbal drops he pronounced the baby cured. The parent then cancelled the surgery for their baby, who died of heart failure at the age of 18 days.

Australian Skeptics has spent a great deal of time in urging the health regulatory authorities, the media and the public to be alert to the dangers inherent in the use of the unproven remedies and techniques that cluster under the rubric of "alternative medicine". Our concern is that the hypotheses underlying many such therapies betray no knowledge of either human physiology or the causes of disease, nor do their practitioners show evidence of having a basic grasp of scientific principles. They rely, rather, on anecdote and magical (or wishful) thinking. They have no demonstrated ability to either diagnose, or to treat serious, life-threatening illnesses.

This case (and several others) quite clearly demonstrates the point. The child had been diagnosed with a critical, but treatable, condition by using the best available technology and scientifically sustainable, evidence-based knowledge. Yet he was denied the chance of life because of a wide and uncritical public acceptance of pseudomedicine. There is no evidence that Mora machines, Rife machines or any other such spurious electronic gadgetry can diagnose any illnesses, let alone treat them. Nor is there any reason to suppose that herbal remedies have any value whatever in "curing" serious physiological abnormalities. Yet they continue to be promoted and sold widely in this country, with insufficient concern being shown by the authorities whose duty it is to protect our health.

Further, we should be gravely concerned that the news media are generally not interested in cases such as this one. While, to its credit, the *Newcastle Herald* did cover this case in depth, it received little or no mention in any other media around the country. Fenn's conviction and sentencing was briefly mentioned in the electronic news bulletins, without any real details being given, and in the print media it rated one paragraph at best.

Our colleague Cheryl Freeman has spent vast amounts of time, money and energy in supplying information about quackery scandals to all manner of media outlets, but there have been very few in-depth stories about them. We are entitled to ask what has happened to the tradition of investigative journalism our media pride themselves on? And to ask why are stories about paedophile priests and parsons abusing children (rightly) regarded as such big news, while equally (or more) appalling cases of quacks killing children are not?

Australian Skeptics has been following and reporting on this case since its inception, and while we take no pleasure in the sentencing of a sick old man to prison, we are encouraged that it shows that the law does sometimes act to protect the public from specious claims made about fallacious treatments using bogus gadgets. It is so sad that it required the avoidable death of a baby to bring this practice to the attention of the authorities.

Barry Williams

Around the Traps

With friends like this...

We are sometimes asked why our focus in *the Skeptic* seems to have concentrated on issues concerned with 'alternative medicine' of recent years, while other issues have taken a lower profile. The answer is simple; other frauds and shonks can rip you off financially and intellectually; quacks can kill you. That our concerns are well warranted is demonstrated by the tragic case discussed in the Editorial.

We have had some hard-won success in alerting those who should be alerted, but our case is not helped by instances such as the story shown on *Catalyst* (ABCTV) on February 19.

Catalyst is the national broadcaster's flagship science programme and one of the few such on TV. In this case it told the story of a professor of emergency medicine at a university who had been diagnosed with multiple sclerosis (MS). He was not satisfied with the standard treatments prescribed for his illness, so he searched the medical literature and discovered a couple of studies that seemed to indicate that a deficiency of Vitamin D *might* have had an effect in causing MS, while certain dietary measures *might* have an effect in combating it. In seeking to increase his intake of Vitamin D, he chose to ignore the known dangers of contracting skin cancers by exposing himself to more sunlight, and to change his diet. He claimed to have had some improvement in his condition because of his new regime.

In fact there is not much wrong with this story, as it stands. MS is a disease about which much is not understood and the treatments for it are far from perfect. The patient, as a doctor, would have known this, so he searched the literature and decided, if effect, to conduct an experiment with himself as the subject. In other words, he took a punt that these hopeful signs might have resulted in alleviation of his ailment, where more recognised methods offered less hope.

What was seriously wrong with the story was that, throughout, the *Catalyst* reporter referred to this regime as 'alternative medicine'. While an argument could be made on semantic grounds that this treatment was a medical 'alternative' to the more commonly used treatment, it was certainly not what the public has been led to perceive 'alternative medicine' to be. This treatment was based on legitimate clinical studies, albeit incomplete and inconclusive ones, and that is a different matter entirely. It would take a very brave MS specialist to recommend treatment based on these inconclusive studies, even though the doctor in question was prepared to take the risk.

This story so incensed our contributor, Jef Clark, himself an MS sufferer (see his story in the last issue) to email the programme, pointing out that he had been in remission since 1998 while adhering to the orthodox treatments.

And we have every right to expect that a science programme should recognise the difference.

Some conflict

On another front, the British journal, *The Lancet*, has admitted it should never have published a study conducted in 1998, linking the measles-mumps-rubella (MMR) vaccine to autism. This study, based on only 12 cases, has been used by anti-vaccination activists to frighten parents into rejecting the vaccine, despite the fact that no other studies had shown any such link. One result was that many parents had not vaccinated their children, leading to outbreaks of measles in the country.

Lancet said it had changed its mind about the study when it learned that the prime author of the report, Dr Andrew Wakefield, had a "fatal conflict of interest", as at the time he was also doing a study for a legal aid group acting on behalf of parents who believed their children had been harmed by the vaccine.

We doubt if this news will deter the anti-vacc fanatics for one minute. Facts have never formed part of their armoury.

Happy Birthday Chilla

The Darwin Day movement, designed to celebrate the birth of Charles Darwin on February 12 1807 is gathering momentum around the world, leading up to major celebrations on his bicentenary.

This year the DD Committee in Sydney awarded three prizes — the Huxley, Gould and Wilberforce Awards — at a function held in the auditorium at Sydney Grammar School. Around 300 people, including a large number of students from various public and private high schools attended, and heard inspirational scientific presentations by Profs Mike Archer and Paul Davies and Dr Charlie Lineweaver.

The committee, a joint venture of The Australian Museum Society, Australian Skeptics and the Humanist Society of NSW, awarded the Huxley to Prof Mike Archer, Dean of Science at the University of NSW, *"For original contributions to the science of evolution and evolutionary theories"*. Prof Ruth Mawson, director of Macquarie University's centre for ecostratigraphy and palaeobiology, won the Gould *"For services to education and the promotion of science in areas relevant to natural history and evolution"*. Both were present to accept their awards.

However, Dr Carl Wieland, CEO of Answers in Genesis, was unable to attend to receive the inaugural Wilberforce Award, *"For the antievolutionist who, through the silly nature of their argument or actions has done the most to promote evolution as a fact"*. His award, consisting of a framed certificate and a plaque containing a slice of a millions of years-old stromatolite, has been sent to him.

Finding the evidence

Apropos the above, news is in that British archaeologists, using ground penetrating radar, believe they have located the long-lost remnants of *HMS Beagle* buried under three metres of mud in a river estuary in Essex. The *Beagle,* of course, was the small ship which took Charles Darwin on his voyage of discovery around the world and the whereabouts of its remains have long been a mystery.

This news caused our geological contributor, Paul Blake, from Queensland to muse: "If scientists can find the *Beagle* under three metres of mud, how come creationists cannot find a 400 foot long boat on top of a mountain?"

A very good question, Paul.

HITLER DOOMED, WILL FALL NEXT YEAR.

Says Horoscope Reader.

Upheaval In Central Europe, But No War.

(From a Special Correspondent. By Air Mail).

LONDON, December 3.

Next year will see the eclipse of Hitler, according to a leading horoscope reader who prophesied the abdication of King Edward VIII. and the accession of King George VI. The prophet is the Hon. Ralph Shirley, a former editor of the old quarterly review known as 'The Horoscope."

In the third issue of his paper, 26 years ago, was published the horoscope of Prince Albert, then a child, now King. It was stated that "the boy will be extraordinarily lucky and will reach in due time : higher sphere than that to which he was born."

Forecasting the doom of Hitler he declared this week: "Hitler will, I am convinced, be right out of the picture after next summer. Then the outlook will be brighter. Watch the summer round about August in connection with Hitler. I think there is some upheaval coming in Central Europe. We may have serious cause for anxiety, before then.

"But I do not believe in any repetition of the Great War, but menace of war I daresay and fighting in Europe and popular riots."

Written in the stars

Our thanks go to reader, Guy Burns, who, when researching a story he was doing on his grandparents, was looking through some ancient newspaper clippings. From the *North Queensland Register* of December 24, 1938, he found this remarkable prediction. Of course this gains a whole new level of credibility when we see that the seer in question revels in the title "The Hon".

As we all now know, Adolf Hitler did indeed disappear from the political scene in August 1939 and there was no war, only a popular riot. Nasty rumours we might have heard about a so-called World War II were clearly invented by cynical propagandists who refuse to take astrology seriously.

As Winston Churchill might have growled, "Some disappearance; some riot".

To clone, perchance to spin

The complex question of cloning has attracted quite a bit of notice of late, and it is instructive to see the approaches taken by the media to two such stories.

On the one hand we saw and heard a great deal of comment, without any real substantiation, about a cloned baby being born in Australia. The second story was about a Korean team that had successfully created stem cells from a human embryo. The first story seemed to be simply a publicity-seeking gimmick by a quasi-religious cult, while the second concerned a scientific breakthrough with immense potential benefits for medicine.

One story got wide coverage in all the media, while the other was well down the list. If you can't guess which was which, here's a clue. Which story was promoted by a blonde with a revealing décolletage? Further clue — how many blonde Koreans do you know?

Farewell to old joints

As you readers are enjoying this issue, please spare a thought for our noble (but definitely not "The Hon") Editor, who will be undergoing surgery to have his decrepit old knees renovated.

We did suggest he try magnets, herbs, several kinds of massage and prayer, but, traditionalist old reactionary that he is, he would insist on putting himself in the hands of the medical establishment. He can't say he wasn't warned.

Bunyip

Murders and Clairvoyants

Well-meaning or malicious, 'clairvoyants' can be cruel to the grieving.

Bret Christian is a long-time Skeptic subscriber, and editor and proprietor of the Post group of suburban newspapers in Perth.

Skeptics sometimes find amusing the bizarre claims of clairvoyants, but there are many instances when their antics add to the trauma and heartache of bereaved people. Human tragedy is a fertile ground for clairvoyants, striking relatives and friends at their most vulnerable. Unthinking clairvoyants who offer unsolicited 'visions' that add immeasurably to grief at this time are singularly unfunny.

Family tragedies

Of all human loss, the most difficult for any parent to imagine is the shattering sadness of losing a child. On Australia day 1996, Sarah Spiers, a secretary aged 18, went with friends to a nightclub in the business district of Claremont, a well-to-do suburb halfway between Perth and Fremantle in Western Australia. She knew the area well, having spent her schooldays in an adjoining suburb. Sarah left the club at about 2am and walked to the next street, where phone records show she called a taxi. When the cab arrived she was no sign of her. She has never been seen since.

Initially, police treated her disappearance as a missing person, perhaps a runaway. But her family knew this was not possible. She would never fail to communicate with her loving family, under any circumstances. Sarah had shared a unit with her sister and there was nothing in her background to indicate that she would voluntarily vanish. Her distraught parents searched for Sarah, printing posters and making public pleas for anyone holding her to return her safely.

Just four months later, Jane Rimmer, a 23 year old child care worker who had been to another Claremont nightspot, vanished in the early hours of the morning. Her body was found in bush 40 kilometres south of Perth. Police believed she had been killed within hours of her abduction. Panic set in when 27 year old lawyer Ciara Glennon vanished nine months later from the same strip around midnight. A serial killer was at large, the police said, and would strike again.

All this time Don and Carol Spiers had not given up hope of finding Sarah alive. Don Spiers took time off

from the shearing team he ran, and the couple moved into their daughters' city apartment. They publicised the phone number in the hope that anyone with information would come forward, and made sure at least one family member was by the phone 24 hours a day.

They got plenty of information, but it was bad information. It came in a torrent from the fevered minds of clairvoyants, around 250 of them. The callers told the desperate Spiers parents of dreams and visions that would lead them to their daughter. The calls placed Don Spiers into an agonising and cruel dilemma. He did not believe in clairvoyants but was compelled to do everything in his power to find Sarah. He felt he had to act on the information because he was concerned that one of the callers might have some factual information to offer but was hiding behind the persona of a clairvoyant.

'They have been a huge torment to myself and my family in giving cryptic clues as to where Sarah might be,' he told the ABC's *Australian Story* in February.

Many of the clues sounded specific, but they were just not specific enough. One clairvoyant told of a house in the inner Perth suburb of Wembley where Sarah was being held against her will. The seer described a house that was in a tree-lined street, with a white picket fence and a For Sale sign at the front. But the vision mysteriously did not include a street name or house number.

Every street in Wembley has street trees. Don Spiers spent hours driving the streets looking for the right house, without success. On another occasion he made the long, sad car trip alone to the old gold mining town of Southern Cross, 250 km east of Perth, where he was to find a man fitting a certain description in a pub. This man held the key. But again he drove home empty handed, frustrated, angry and shattered.

He described a night spent at an isolated reach of Perth's Canning River. "I remember one night, early days, I was down Salters Point, thrashing around in the swampy areas down there at 11 o'clock at night… walking around, bawling my eyes out and getting nowhere."

A frustrating aspect of this sorry saga is that the callers to the Spiers family were almost certainly acting without malice. They were "only trying to help". A dream or a thought had popped into their heads and they thought the "information" should be passed on. Just why did they give credence to these visions? What were the thought processes that led them to pick up the phone to call a grieving family of strangers when they had nothing of value to offer?

One can only speculate on the influence of trashy television programs and magazine features that give psychics undeserved credibility. The producers of these programs sacrifice truth for ratings and advertising dollars by sucking in gullible viewers. They don't want to spoil the effect by putting the sceptical viewpoint, by pointing out that no-one has ever demonstrated the ability to "see" the unseeable or communicate with the dead. Perhaps these exploitive programs should be required to carry a warning that they are simply magician shows, for entertainment only.

Influencing the psychics who pedalled heartache and grief to the Spiers family may have been the long history of con-men and women who have been given prominence in the news media by claiming to have helped police solve serious crimes, usually murder, a guarantee for headlines.

Croiset and the Beaumont case

There a many such examples, the most infamous in Australia being the Dutch clairvoyant Gerard Croiset. The horrifying missing persons story that Croiset bought into is still seared into the minds of any Australian old enough to remember as far back as 1966. On Australia Day (the type of coincidence much loved by psychics) two girls, Jane 9, Arnna, 7, and their young brother Grant, 4, disappeared from Glenelg Beach near Adelaide after a morning of swimming and playing on the beach with a " tall, blond man". No trace of them has ever been found.

Their stricken parents raised the alarm, and a massive search was mounted. The usual crop of clairvoyants with "information" gleaned from dreams, séances and psychic visions bothered the Adelaide police. The followers of Croiset, a self-proclaimed psychic, hired a helicopter to take photographs of the beachfront which were sent to him in Holland, along with press cuttings, prints and other information. Croiset relayed the results of his ever-changing visions back to Adelaide.

His followers dug all over the place – in sandhills, in a blocked drainpipe and in the yard of a children's institution, where a bulldozer was hired to shift tonnes of sand. Skeptics will be unsurprised to learn that nothing was found.

These false hopes added immeasurably to the anxiety and grief of Grant and Nancy Beaumont. All their children had vanished and the psychics were offering false hope as to their location. But failure was not to deter Croiset. In 1967 he travelled to Adelaide, arriving to a celebrity welcome, and the charade continued. He declared himself certain as to the location of the buried children, and armed with a sketch-pad, camera and tape-recorder, set of with his acolytes in pursuit. After two days and a whole series of ever-changing locations, he failed to produce anything.

He then dramatically changed his mind again and declared that the children were buried under new food warehouse that had just been built. The South Australian government resisted strong public pressure to spend $7000 replacing the floor of the warehouse, but a committee of citizens raised the money. A wall of the factory was knocked down and the floor dug up. Nothing was found. Business was disrupted, thousands of dollars were wasted and false hopes were shattered.

But that, sadly was not the end of

it. In 1996, 16 years after Gerard Croiset's death, followers of the discredited clairvoyant had another go. At great cost they decided to re-excavate the warehouse site again. Again, no trace of the missing children was found.

Police responses to psychic claims

So-called psychic detectives who allegedly help police solve crimes have been a thriving industry in the United States, their reputations booming after appearances on television talk shows, their claims unquestioned by the hosts. But even in California, the spiritual home of the way-out, the police dismiss such claims.

The Los Angeles police Department issued this statement:

The LAPD has not, does not and will not use psychics in the investigation of crimes, period.

If a psychic offers free information to us over the phone, we will listen to them politely, but we do not take them seriously. It is a waste of time.

A study into the subject by the LAPD's behavioural science services and police psychologist concluded that the hit rate of psychic detectives was statistically no better than chance. The department's public relations department says:

It is important to note that no information that would have been investigatively useful, such as first and last names, licence plate numbers, apartment house locations etc. was accurately produced by any of the subjects.

The UK's Scotland Yard has the same policy. The Yard's Inspector Edward Ellidon stated:

Scotland Yard never approaches psychics for information. There are no official police psychics in England.

The Yard does not endorse psychics in any way.

There is no recorded instance in England of any psychic solving a criminal case or providing evidence or information that led directly to its solution.

The dramatic claims made by psychics to have "seen" vital clues often fall into the category of retrospective predictions. They are only slightly more sophisticated versions of : "I dreamed about the Melbourne Cup winner – I should have backed it."

Writes Kelly Roberts in *Psychic Investigations: A Clairvoyant's Diary of Assisting Law Enforcement*: "Did he tie her up?" I asked (the police)…. did he tie her up with shoe laces?

"They all looked at me, then at one another… they seemed surprised that I knew."

This kind of self-serving tripe can easily tip over into blatant fraud of the kind exposed by Harry Houdini.

There is another category of eerily accurate psychic detective work described by leading US skeptic James Randi.

A man claiming to be a psychic attracted the interest of police when he predicted a serious industrial fire. The accuracy of the detail after the event could only have been provided by the psychic's special powers. But police discovered that he had no need of paranormal powers to produce his visions – he himself was the arsonist.

It was the prospect of just such a claim that led Sarah Spiers' family to sit by the phone to face the agonising prospect of one more misguided psychic call.

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Convention 2004 November in Sydney

Details in the next issue

Predictable Outrage

Astrologers react to negative findings in the *Journal of Consciousness Studies* with name-calling and getting it wrong.

An updated version of a report that first appeared under News and Comment in *Skeptical Inquirer* January/February 2004 .

The special June/July 2003 issue of the prestigious *Journal of Consciousness Studies* was devoted to parapsychology, It contained twelve long articles, and the issue as a whole received praise for its balanced approach from *New Scientist* (13 September 2003 "authoritative and accessible"), and from *Amazon.com* ("serious and responsible"). But what caught media attention was the article entitled "Is Astrology Relevant to Consciousness and Psi?", a scholarly article of 24 pages and 85 references by astrology critics Geoffrey Dean and Ivan W Kelly, which one astrology website later described as *'Dean and Kelly rehashing old and flawed research hype'*. It led to the biggest media frenzy on astrology for 2003.

Two things make the frenzy of particular interest to skeptics. First, its focus is not your everyday sun sign astrology but the supposedly serious astrology of conferences and consulting rooms. Second, the frenzy brought out some of astrology's top guns, which allows you to see how well they perform when confronted by scientific findings. (If you happen to be a True Believer you may prefer to abandon the article at this point, or at least take a tranquilliser.)

The JCS Article

Dean and Kelly start by quoting various astrologers on how a successful birth chart reading requires some kind of psychic ability, where the chart acts like a crystal ball. If this were found to be true it might require a reassessment of present theories of consciousness, so it deserves study. But a large-scale test of 2,101 persons born on average less than five minutes apart found no hint of the similarities in personality or behaviour predicted by astrology. So if astrologers (as opposed to astrology) can predict personality or behaviour better than chance, as they claim to do, it might be evidence for psi.

But meta-analysis of more than forty controlled studies found no evidence that astrologers perform even marginally better than chance, even on basic tasks such as predicting extraversion (basic because according to astrologers it is one of the easiest things to see in a birth chart). They do not even usefully agree on what the birth chart indicates. More to the point, astrologers who claimed to use psychic ability performed no better than those who did not. Dean and Kelly cautiously conclude '*the possibility that astrology might be relevant to consciousness and psi is not denied, but such influences, if they exist in astrology, would seem to be very weak or very rare*'.

Media interest

Normally this cautious non-link between astrology and psi might have passed unnoticed. But it was picked up and distorted by the *Sunday Telegraph* London, 17 August 2003 ("Astrologers fail to predict proof they are wrong"), and was duly copied or quoted around the world from Brazil to Finland. It was distorted because Dean and Kelly's focus was psi and consciousness, not the merits of astrology (for example its merits include providing low-cost ego support, and astrologers are generally nice people), merits they had already covered in other articles such as their chapter in Paul Kurtz's *Skeptical Odysseys*, Prometheus 2001. The result was a frenzy of misleading headlines and reports such as "Is astrology bunk?" (*Daily Mail* London, 18 August), "Research paper rubbishes astrology" (*Hindustan Times* India, 17 August), and "Who will put their faith in the stars?" (*Sunday Herald Sun* Melbourne, 14 September).

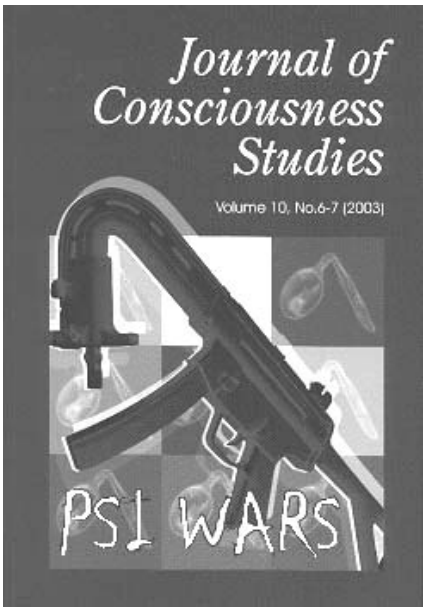
Regardless of the distortion, astrologers were predictably outraged and uninformed. They declared that negative results are by definition due to ignorance or hostility. Especially outraged were Indian astrologers. One said in emails '*it is only a*

study by some crazy white b's. They do not have any brain'. Another said '*Most probably these two guys are unemployed*'. Another said *'if you really want to test astrology ... the only place where the research can be justified is here in India*' (where presumably men are Men and astrologers are Astrologers).

Astrological backlash

Perhaps the most notable response from India was "Astrology is Science, not Rubbish" (*India Express* 25 August 2003), where Dr Raj Baldev '*who is considered an authority on the subject of Astronomy, Astrology, Cosmo-Mathematics and Metaphysics*' (he has an astrology website www.occultastrology.com offering "The perfect gift. Occult Horoscope by post. Only $6.95") said Dean and Kelly had made '*an abominable mistake that can never be pardoned*'. He explained that ancient Hindu astrology '*is a complete science*' where even one million billionth of a second '*makes a lot of difference*'. So it is ridiculous to believe that people born a few minutes apart should be similar. (Measuring birth times to a million billionth of a second implies that the position of shadows cast on ancient sundials was routinely read to better than a hundred millionth of the diameter of an atom. Even at night. Should we believe it?)

Western astrologers did not hesitate to give opinions without having read the article. In a Melbourne radio interview, Brian Clarke from the Australian Federation of Astrologers explained how there was more to astrology than sun signs, so all was well (in fact the Dean and Kelly article had nothing to do with sun signs). In *The Guardian* London, 19 August 2003, astrologer Neil Spencer noted how astrology can '*send arch-rationalists into fits of self-righteous indignation*' (like his?), how the article lacks details (not true), how it ignores the positive results of Vernon Clark and Gauquelin (not true), and how the '*Magi Society* [an international society of astrologers based in New York] *... still has to receive a riposte to its statistical challenges*' (one is in *Skeptical Inquirer* March/April 1997). He ends with '*Astrology is not a science but a symbolic, allusive language*' (boo to Dr Baldev), as if that somehow excused its failure to deliver on testable claims, to which the philosophy/sociology website www.butterfliesandwheels.com replied '*Oh that old ploy*'.



The most orchestrated response came from the AA (the British Astrological Association), which in 2000 had refused to publicly declare its position on sun signs despite overwhelming evidence for their invalidity (see *Skeptical Inquirer* September/October 2000). The AA president Roy Gillett advised *'extreme caution'* and accused Dean of seeking to '*discredit astrology*', and the AA website www.astrologicalassociation.com accused Dean and Kelly of having a '*tortured imagination*' and '*defensively closed mindsets*' that '*deny astrology an evenhanded debate*'. To restore the balance the website then gave '*a balanced response*' via two reports that together '*comprehensively dismiss these outrageous and disingenuous claims*'.

Enter the Top Guns

The first report, which originally appeared in the *Daily Mirror* London, 18 August 2003, was by '*world renowned astrologer Jonathan Cainer'*. Cainer has his own astrology phone-lines, and according to the *Sunday Times,* London his estimated income of £2.2 million a year puts him among the top 150 UK earners. Cainer begins by complaining that it cost him £15 to down-load the article, whereupon he was suspicious the moment he saw the authors' names (refutation by name-calling?), claiming that Dean deliberately misunderstands what astrologers do (Dean is a former astrologer and understands very well what astrologers do).

Cainer then drops a series of clangers — personality tests are '*dangerously unreliable*' (not these ones), '*most scientists hate astrology*' (most have better things to do), the tests covered ages only up to 23 (so Cainer rejects phone-line callers under 23?). His most notable clanger was '*Once again, it turns out to be an experiment rigged to make astrology look silly*' (in fact it was the AA who proposed the experiment in the first place, not in a moment of weakness but in a well-researched eight-page proposal prepared in 1965 when the subjects were seven years old). He ends with '*And some scientists claim to have a truly open mind*' (like his open-minded behaviour towards negative findings?).

The second report was by '*leading author and academic Dr Frank McGillion*', a consultant to the astrological research group at Southampton University, who is said to find the article '*essentially flawed and well below expected academic standards*'. Dr McGillion begins by saying the article is too long, then it is too short. He quibbles about definitions without providing his own definitions, he dwells on side issues without explaining their relevance, he cites unspecified "evidence" without supporting references or arguments, and he generally declines to act the way he tells Dean and Kelly to act.

He says a focus on consciousness and psi '*might seem less relevant ... than the authors appear to consider*' (the call for papers required it), he dislikes '*the citation of names of non-*

scientists in formal scientific papers' (so how to give astrologers' views without citing astrologers?), and he says editing such psi papers *'is a demanding task for the non-specialist*' (one editor was world expert James Alcock). At the end he generously allows that '*there is much here that astrologers can learn from*' (so Cainer was wrong to call it *'a load of rubbish'*?). Nevertheless conspicuously absent is a description of what Dean and Kelly did, what they found and what it might mean for astrology (refutation by censorship?).

Claims of credibility are clearly not helped when the AA, which calls itself '*one of Europe's leading astrological organisations*', can see these two reports as '*a balanced response*' and '*even-handed debate*'.

Yet other astrology websites uncritically recycled the reports almost verbatim. For example www.astrology.co.uk said Dean and Kelly were '*manipulating results ... using self-fulfilling personality tests ... selecting data to fit results*', and dropped new clangers such as implying the average birth interval was one day (it was less than five minutes), and asking '*who says astrologers are psychic?*' (answer: the astrologers and surveys quoted).

Another website said '*Dean and Kelly are known to be opponents of astrology*', as if seeking evidence was an act of heresy. Similarly, in *The Mountain Astrologer* (Dec/Jan 2003/2004 issue), the American astrologer Gloria Star (without reading the article) said '*the research itself appears to be significantly flawed*'. No doubt her opinion will be repeated by other astrologers around the world, always without reading the article. Should we be surprised?

Getting it wrong

Without exception the astrologer responses boiled down to name-calling, getting it wrong, and never citing compelling evidence to support their claims. Even serious media outlets adopted this distortion. For example in the NZ *Listener* (4 October 2003), in an article subtitled '*a recent study claims to debunk astrology once and for all*' (not true), astrologers and skeptics are seen as being permanently locked in '*trench wars*' and '*long feuds*'; serious studies are seen as attacks on astrology; researchers are seen as debunkers; and astrologer quotes such as '*you will never get a correlation that is significant, because we are dealing with individuals*' are seen as an adequate response to the negative meta-analysis even though it involved individuals. So '*In the end, you either believe or you don't*' (yes, why have tests when you can have shouting matches?). In the end readers receive only titillation for the hard of thinking. Such outlets never notice that the two sides might be talking about different things (facts versus benefits) which are not mutually exclusive. It seems that media interest in astrology generally destroys any hope of informed debate.

Later, in the January/February 2004 issue of *The Astrological Journal*, AA president Roy Gillett added '*Of course it is easy to answer the Dean/Kelly/Randy/'CSI COPS' (and all other) criticisms*', presumably as easy as misspelling Randi and CSICOP, but he conveniently omitted to say how. Most likely he meant more of the same getting it wrong.

And in the January 2004 issue of *Correlation*, the AA's journal of research in astrology, Dr McGillion presents an update of his report. In it he claims the JCS article ignores relevant literature, is wordy, vague, illogical, factually incorrect, poorly researched, poorly edited, with imprecise definitions, nonsensical statements, loose terminology, fallacious reasoning, much unnecessary speculation, and much unnecessary material. So he is '*not convinced it makes any meaningful contribution to consciousness research'*. Evidently Dr McGillion thinks the article and the entire JCS issue is (or should be) about consciousness research, not parapsychology. His focus is consequently wrong from the start, which makes most of his comments less than relevant. His rule that one should be relevant and '*get it right*' is evidently not one that he himself observes.

Inexplicably, Dr McGillion again mentions neither the aim of Dean and Kelly's article, nor their results, nor their conclusion, nor their discussion of artifacts and hidden persuaders, nor even the word *parapsychology*. He quotes the article out of context, and then uses the lack of context to ridicule the quote. He gives few details of the points he refers to, so his comments tend to read like riddles. The result is like commenting on a restaurant menu without mentioning food.

It will be obvious by now that astrologers do not like awkward facts. But the reports presented by their top guns as counter evidence are essentially arguments by distortion and innuendo. Whatever we may think of astrology, it deserves better than this.

Further Reading

Readers interested in the state of research into astrology will find plenty of informed critical articles at the user-very-friendly website http://www.astrology-and-science.com. Look under *Dialogues* to find Dean and Kelly's detailed point-by-point responses to Cainer and McGillion. Their responses are given as comments inserted into the original and reveal very well the deficiencies of astrology's top guns.

Reference

"Is Astrology Relevant to Consciousness and Psi?" *Journal of Consciousness Studies* 10 (6-7), pages 175-198, with four tables and 85 references. The first half looks at the views of astrologers on consciousness and psi. The second half looks at the relevant evidence. The authors are Geoffrey Dean, a technical editor in Perth and a CSICOP Fellow, and Ivan W Kelly, Professor of Educational Psychology at the University of Saskatchewan and chairman of CSICOP's astrology subcommittee. Both have been investigating astrology since the 1970s.

For JCS see www.imprint.co.uk/.

Geoffrey Dean and Ivan W. Kelly

Yeah! Yeah! Yeah!

Aliens over Melbourne? Our ace investigator doubts it.

Steve Roberts is a man of parts, some of which are connected. We had a better photo of him, but men in black came and took it away.

Ahh, Melbourne! The crown of Victoria — the sign on the casino roof says so. This earthly paradise basks in the sweltering 25° heat of summer on the shore of a mighty sea, widely separating it from Tasmania (otherwise Tasmanians would swim across, decreasing the average IQ of both states). The city is dazzling in the summer sun; from outer space, the smog increases its albedo. The birds are coughing in the trees, the traffic gently roars and drivers cheerfully toot and greet one other with the traditional hand signals. In the reservoirs the water sparkles, in small puddles at the bottom. Those T-shirts with "Melbourne Rain Festival, Jan 1 - Dec 31" have long been out of fashion.

As the Buddhists believe and as thermodynamics confirms, nothing is permanent; everything is in a process of decay. For example, think of Sydney (or on second thoughts, don't). Even the very road signs, so pristine and glossy when first installed, suffer the depredations of time. And gun practice. It is therefore the whim of various council traffic departments occasionally to send traffic engineers out to check on the condition and functionality of those traffic signs for which they are responsible. Imagine the collected horror of the populace, for example, if a "Stop" sign were to decay so that it said only "slow down a bit". Actually, this particular process is quite well advanced in many places.

This sign-checking activity can reach a feverish pitch at level crossings, with their obvious hazards when a train crosses. Accordingly, on Thursday 15 January 2004, the Whittlesea Council despatched a traffic engineer to a certain remote hamlet at the city's northern limits to admire and indeed to photograph such an event. Melbourne does have northern limits, of course, otherwise parts of Sydney would creep in.

Now we do have trains here in Melbourne, but we don't have many of them and they always run late. We print timetables so that people can see how late they are. So imag-

ine the dismay of our engineer, attending at this location, properly clad in the high visibility safety jacket (and no doubt properly indoctrinated concerning the Equal Opportunities Act, and told off if he tells jokes, etc.); despite being eager to do his duty, he would have been sorely disappointed upon finding no trains. Yes, there was the level crossing — there the tracks — there the signs — but of wheeled conveyances upon the tracks, nary a glimmer.

What to do? Rather than return with camera empty, he decided to wait until a train appeared — why, a small one was scheduled for 1405 on that very afternoon! Meanwhile, the merciless sun beat down from a perfect blue sky, bleaching the skeletons in decayed rags of clothing, clutching yellowing timetables at the edge of the platform. In the relentless progress of time, lunchtime came around, and in the shimmering mirage a public house appeared right beside the level crossing. What joy! Even the very name of the village (Beveridge) began to cry out to him.

Came the afternoon and the scheduled time for the appearance of the train drew nigh. Amid the mounting excitement that would have led up to the event, our engineer appeared in good time, with the Council's digital camera at the ready to record the operation of the level crossing signs for posterity. He stood in the middle of the road — road traffic also being very rare in these parts — and as the train approached and

Flashing at the crossing

Flashing across the crossing

Not so flash

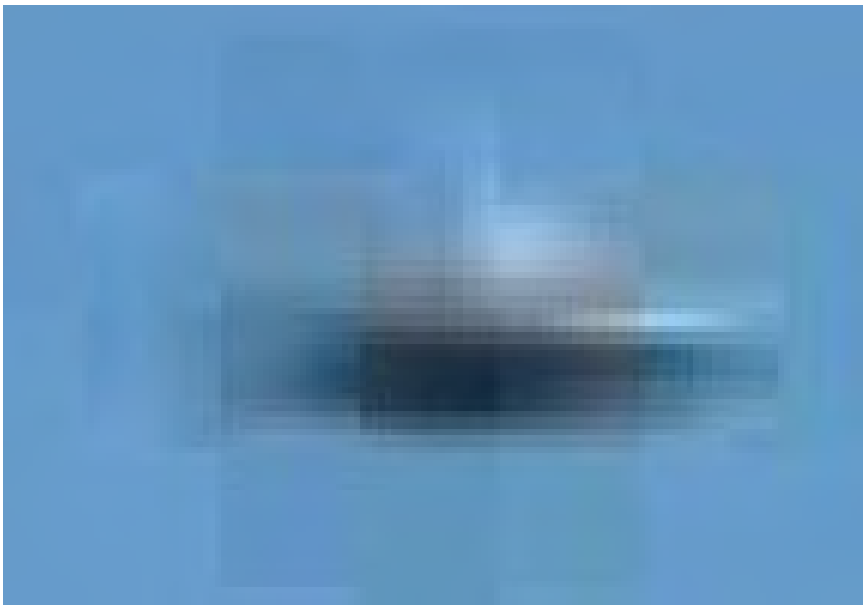
passed he proceeded, as is evidently a standard practice on these occasions, to take about 10 photographs of the level crossing. With and without the train. Before and after training, as it were.

These good-quality photographs, nice and steady under the perfect blue Melburnian heaven, are in the public domain, and we present three of them here for your delectation, O dear reader, free, *gratis* and for nothing, as indeed they came to us, here in our plutonium-lined Skeptical bunker.

The first of these photos shows the lights flashing. Imagine the excitement! The second photo shows the train passing.

Finally our third photo shows, um, well, no train and no lights — capturing those feelings of *ennui* and of *post coitum triste* that must have followed such an event. None of the photos show the barriers coming down, probably because we can't afford to install any. And you can't hear the bells because he used a silent film (sorry, I nicked this one from Spike Milligan). We do however at public cost put up signs that say "Railway Crossing", so that people can check what it is if they are not sure. And we use nice big letters on the signs, because some people find those easier to understand. It's on the road to Sydney, after all.

After capturing his cornucopia of imagery, our engineer went back



Alleged UFO

to his office — our spies are everywhere — and at 3:35 that same afternoon, he began to copy the digital pictures from the camera into his desktop computer. Come to think of it, this process would have taken a minute or two, so I could say that this was at "25 or 6 to 4", and maybe write a song about it. He then did a bit of desk work, went home and had tea. It was a lovely evening and *Inspector Rex* was on the telly.

* * * *

So what, you may ask? Well, Melbourne is so civilised, and life here is so bucolic that I thought you'd just like to hear the story. But there's more. Well, a bit more.

* * * *

The first of these photos, and only this photo, shows a UFO — the photographer did not see it at any time, neither with naked eye nor through the camera. Other people were also present and they also saw nothing. I am confident that the image has not been digitally altered.

The council immediately placed the images on its web page and invited comments from any and all sources. Very wisely, they did not venture any opinion as to what it might be. Thus, exceptionally for a UFO sighting, we have the "original" data! So many requests for original negatives or artifacts of famous UFO incidents have been met with "oh, I lost it" or very occasionally (and sinisterly) "some men came and took it away".

The picture above shows the UFO, magnified 1,000% so that the individual pixels can be seen. A piece of scenery, the letter R of the sign (below), is also shown at the same scale. The UFO is out of focus and blurred in all directions, whereas everything else in the picture — from the distant trees to the gravel at the photographer's feet, is as sharply focused as the camera and JPG imagery can achieve. The only way for the UFO to be out of focus is for it to be very near the camera — within about 10 cm, which would make it about 5 mm or so in size. I confirmed this by looking through various digital and 35-mm SLR cameras at distant scenes and nearby objects.

Within a week the story had been through the local news and thence into the national news; and from there into a major UFO website in California. A current affairs program on Australian commercial TV ran the story; featuring me! ... but more interestingly, the presenter interviewed the traffic engineer at the very spot. They stood there in the shimmering summer heat, waving their hands at the numerous beetles that swarmed around them.

Close-up of sign

Transference Healing

A Sydney doctor decides to find out just what is being offered to her patients in the name of alternative healing.

Experience

In the interests of an open mind I decided I would attend a transference healing session. It came highly recommended by two stressed ladies, whom I knew to be looking for guidance. The session took place at a well appointed home in St Ives.

The first step was for an assistant to take $85 from each of the six participants. Some ten minutes later our white witch entered dressed in black and minus broomstick. She began to talk about herself, barely drawing breath for 45 minutes. She had been a psychic since birth. All her knowledge came from the spirits in the air, as she could operate in five dimensions.

Her fluency was impressive but content nonsensical with a liberal sprinkling of buzzwords and jargon. The effect was boring but had a mesmerizing and disorientating aspect, in that people were listening intently as they sought information and sense where there was none. She explained that one way of measuring healing success was by how sick you were after a session. Her most successful client had been admitted to hospital for violent vomiting and a large bowel motion. Doctors could not work out what was wrong because it was the purging of toxins released by the healing.

We were given to understand that if what she said did not make sense we were blocked and continued attendance at expensive sessions would reverse our blockage. Following this lengthy, boring soliloquy we each in turn received a "personal healing".

She launched into yet another long speech. She told me I had stomach problems and when I denied this I was told they would come in the future. She recommended I have an astrology reading. I was told I was in the throes of great change, which would occur over the following three months. My past lives led to Egypt.

Dr Frances Black has been a Sydney medical practitioner for 28 years.

Observations

There were common themes in the prophecies — all of us were to experience enormous changes in the next three months. There were a limited number of past lives scenarios. When she ran out of words, she would look away, close her eyes and consult with a spirit, whose name she usually knew.

Most of the time her utterances were harmless and repetitive. However, in relation to health she could be harmful. She discouraged a vulnerable old lady who was medically advised to have a hip replacement and she tried to talk me into having a stomach complaint.

My reactions

I thought I was doing well at containing my disgust but when we left one of the others asked me if I was a member of the Skeptic association ... so much for my acting.

It seemed to me that those who attend pay a lot of money so are very motivated to feel they are getting value. I am sure that this creates an environment that must enhance placebo response. Her "wisdom" is so general that a keen desire to find meaning can be easily satisfied. Her interaction with her clients is minimal. It is interesting to see how little her interaction with us was. We left knowing about her and she knew nothing about us.

She performed her role well. I wondered if it was as boring for her to do as it as for me to watch. Also is she knowingly tricking people, does she have some underlying neurological or perceptual difference to normal or perhaps a mixture of both? Are her eyes or brain damaged so that she sees fuzziness where others see clear outlines?

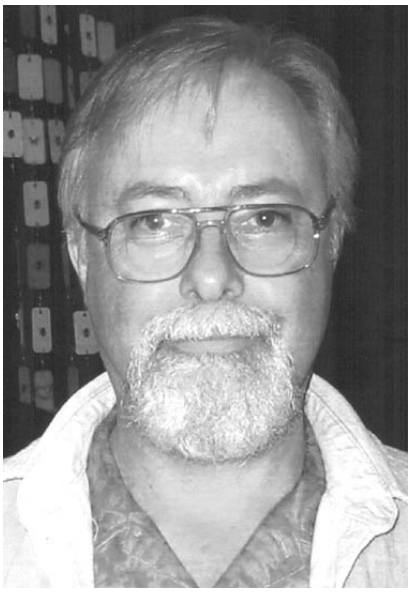
Whatever her real understanding it seemed a licence to print money! From what she said there is no shortage of people eager to see her.

I now better understand what my patients, who are so inclined, are talking about. I rationalize to myself that the session could be used by me as an opportunity to learn how better to relate to people, who believe in witches.

Humbug Detected:

the Logical Fallacy of Special Pleading in the Visual Arts - an Anecdotal Account

The arts present a fertile field for critical thinking



Jef Clark is a lecturer in Education at Griffith University, where he seeks to foster critical thinking skills, as critical appraisal is an essential foundation for skeptical enquiry and scholarly writing.

Humbug detection and skepticism

I am an academic in the Faculty of Education at Griffith University in Brisbane. The content I cover in my courses changes to some degree from year to year. This is in part because education as a field of enquiry and professional practice is subject to fads, fashions and conflicting pressures. Even the corpus of knowledge based on research findings is frequently challenged, modified or even overturned. As an observer of education policy and as a practising tertiary educator over a period of two decades, I have formed the view that the best insurance against egregious error, unwarranted enthusiasm and misdirected effort in education is a skeptical outlook. In my view, a skeptical outlook is fostered and underpinned by a capacity to detect logical fallacies. Inculcation of such a capacity is therefore central to my approach to teaching.

My students are introduced to the concept of logical fallacies through a booklet I produced as a learning resource for all my courses. The title of the booklet is *Humbug!* Humbug is defined in the OED as "deceptive or false talk or behaviour". The full title of the booklet is *Humbug! - the skeptic's field guide to spotting flaws in thinking*.

The purpose of the booklet is to sensitise students to humbug, claptrap, bullshit, twaddle, cant, hypocrisy, tripe, bilge and the like, so that they are able to read critically across any topic or subject area. The booklet does not concern itself with the structure of good arguments, or with models for enquiry. Rather, the content of the booklet (and my approach to teaching critical thinking) emphasises error. As stated in the introduction to the booklet...

> *The underlying premise is that if students become astute at identifying and critiquing flawed arguments, they will become more skilled at: (a) identifying sound arguments presented by others, and (b) formulating sound arguments of their own. When students know what not to do in presenting an argument, they will develop a more sound perception of what they should do.*

As an academic in education, I don't assume that students enter my courses with well-developed critical faculties. The *Humbug!* booklet is therefore designed to ensure that all of my students, no matter how varied their backgrounds, have a set of foundation skills which will allow them to adopt an evaluative stance as they encounter substantive content. Assessment tasks are designed to place a premium on critical appraisal of ideas. To this end, teaching and learning activities tend to encourage disputation, dealing with ambiguity and uncertainty, and critical examination of claims and warrants.

In summary - my approach to teaching and learning across all content areas seeks to inculcate a skeptical skill-set, and a skeptical frame of reference. I define skeptic in *Humbug!* as: "a person inclined to question or doubt accepted opinions" (*OED*). In the introduction to the booklet, I also attempt to make a crucial distinction between skepticism and cynicism.

> *The skeptical student is one who is in the habit of questioning received wisdom. Skepticism is a desirable trait in any person in any walk of life, but it is an essential foundation of scholarship. However skepticism is sometimes confused with cynicism, and it is very important to preserve the distinction. A person who is cynical is one who believes that people are motivated purely by self-interest. The outlook of a cynic is often contemptuous and mocking. The outlook of a skeptic is by contrast positive and productive. He or she assumes nothing about motives, and is focussed on deeper understanding of issues and on feasible solutions to genuine problems.*

A self-professed skeptic cannot always be skeptical

Most prominent skeptics who have "set the agenda" for skeptical enquiry in the past, have had a background in science, or in fields of enquiry underpinned by the epistemologies of science. Given this situation, it is only to be expected that the primary focus of skepticism as a "movement" has been on debunking pseudoscience, altmed and paranormal claims. This focus, while important means that many other fields (such as education) are relatively neglected. It is also my experience that those of us who claim to be "skeptics" are only skeptical in selected domains. I include myself in this observation — and I am sometimes candid about my own lack of skepticism across a range of subjects and activities. It seems self-evident to me, that any individual who actually sought to approach every aspect of life with cool reasoning, logic and detached skepticism would never be invited to parties. Let's face it, the Spock character from *Star Trek* would be the houseguest from Hell.

A more "visible" example of a domain-restricted skeptic is Phillip Adams, columnist for *The Weekend Australian* newspaper. Yet Phillip is widely regarded as a principled and eclectic skeptic. In the Summer 2003 edition of *the Skeptic* for example, Tory Shepherd (in her article "Skepticism and the Unexamined Life") cites with extravagant approval a fairly prosaic paragraph from one of Phillip's columns where he seeks to make a distinction between skepticism and cynicism.

> *Scepticism is healthy. Far more than jogging, meditating or bran eating, it is conducive to mental, political, scientific and religious wellbeing. Whereas cynicism – something frequently confused with scepticism – is not simply unhealthy but frequently malignant.* Weekend Australian *November 8-9, 2003*

In making his distinction between healthy skepticism and malignant cynicism Phillip is (by implication) inviting his readers to assume that he is himself a "healthy skeptic" rather than a naughty cynic.

However, I often use his columns from *The Weekend Australian* in my teaching — as examples of flawed, rather than critical thinking. Phillip demonstrates a skeptical standpoint, and critical thinking skills when he seeks to debunk pseudoscience, new age fantasies and the like. However when he seeks to advance or defend his cherished and deeply held beliefs, he can become a rather bombastic flawmeister. To an academic seeking to inculcate critical thinking skills, his more polemical writings in *The Weekend Australian* represent a much-cherished mother-lode of logical flaws. It's probably a genre problem — because in common with most established members of the commentariat, Phillip is apparently paid simply to have opinions... on everything. An analytical treatment is therefore out of place in a belief-infested opinion column which is clearly intended to provoke reader reaction rather than reader reflection.

Phillip's more risible columns about "The Great Satan" in particular, are also easily debunked by students who have not yet developed a capacity to critically analyse more sophisticated and convincing opinion-pieces.

Speaking of religious matters, and if I may be permitted a small digression. Has no-one else noticed that Phillip, an atheist icon, frequently and shamelessly admits to a pervading "sense of the numinous" when contemplating life, the universe and everything. Numinous: (according to the *OED*) '*having a strong religious or spiritual quality; indicating or suggesting the presence of a divinity*'. Further, the derivation is from the Latin *numin*, which means divine will. Yet Phillip is the unofficial spokesman for the rationalist faction of the provisional wing of the skeptical movement. In my view, he should reconsider his position.

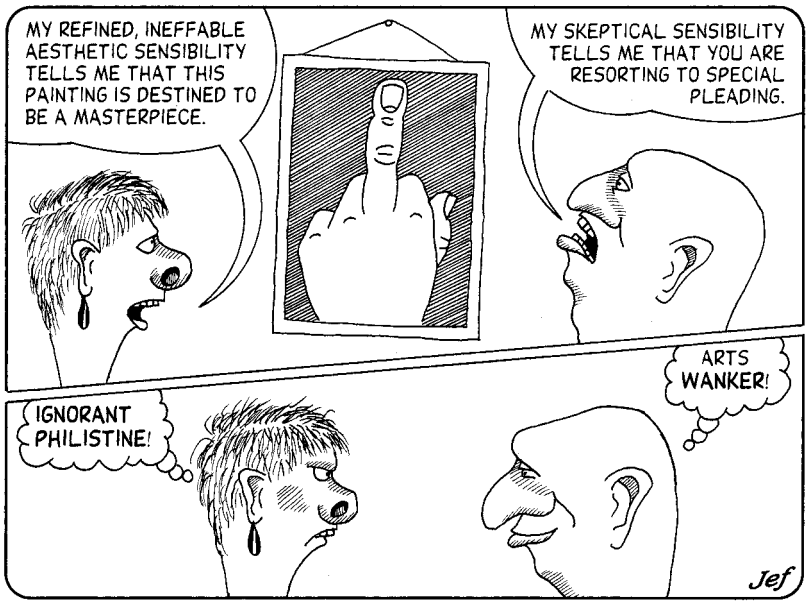
A common logical flaw: special pleading

Humbug! itemises and describes a total of 34 flaws in informal logic. There is no widespread consensus in "the literature" on the number and typology of such flaws, but most of those included in the booklet are commonly recognised. Some novel flaws are also described. In some cases these novel flaws are exten-

sions or amalgamations of commonly recognised flaws. This article is the first of an intended occasional series for *the Skeptic*. Each article will be based on a selected flaw covered in *Humbug!,* and the way in which the flaw manifests itself in a particular context. In the present article, the flaw is special pleading, and the context is community-based visual art.

Special pleading occurs when an advocate makes an unwarranted claim that he or she has a special insight into the topic under discussion (or the field under consideration). Further, (by implication or explicit claim) the opponent cannot possibly comprehend the subtleties or complexities of the issue because he or she is not able to attain the level of insight available to the advocate. Underlying such special pleading or claims to deep insight or empathy is a presumption that the views of the advocate cannot be evaluated because the opponent lacks the capacity to make any valid judgement. All such claims should be treated with deep skepticism.

Special pleading is a commonplace feature of newspaper opinion columns, political speeches, television panel discussions and the like. People who seek to air their convictions in such public forums are usually attempting to influence public opinion. Often there is also an attempt at self-aggrandizement through moral and intellectual posturing. In such circumstances, and when the "public advocates" fail to mount a well-researched, intelligent argument in favour of their convictions, they often fall back on a range of shallow rhetorical devices, including special pleading. Any statement along the following lines is special pleading, and can safely be ignored by the skeptic: *'You don't understand because you are: ... a man, a woman, an aborigine, a whitefella; or you are ignorant, a philistine, insensitive; or you lack cultural awareness, political insight, intellectual ability, spirituality etc. If you were like me or had my fine sensibilities you could not help but agree with me'.*



The context: community-based visual arts

Paul Kurtz (the Chairman of CSICOP, and a key figure in the foundation of the modern skeptics movement), made the following statement in a paper he gave to the Third World Skeptics Convention (University of Sydney, November 2000)

The central question that I want to raise here is, 'How far can skepticism and critical thinking be applied in life' ... although the most sophisticated application of critical thinking is exemplified in the sciences, its use surely goes beyond this. Indeed, the methods of critical thinking can and are applied everywhere in society and life. (quoted in the Skeptic *20, 4 Summer 2000, p18)*

It is not normally my practice to appeal to authority in support of my position. However it is gratifying to note that a credible and highly respected skeptic holds the same view that I do — that skepticism is not just about debunking pseudoscience and the paranormal. I also attempt to apply a critical perspective more broadly — to selected domains of my professional, personal, cultural, leisure and recreational life.

This article documents a modest excursion into a largely unexplored domain for the skeptic — art teaching and art appraisal. This topic is of interest to me because I am a sometime leisure painter who recently found myself thrust into the arcane world of community-based visual arts — I was nominated (unopposed) to the Presidency of a local art society in Southeast Queensland. In this role I directly experienced for the first time the beliefs and convictions of committed practitioners and connoisseurs of the visual arts. In recounting and commenting upon limited aspects of my total experience, I will be attempting to make the case that the flaw of special pleading is common in this domain. Further, that this flaw has a deleterious effect on both the teaching of painting and drawing, and the appraisal of artworks.

A bold con job has been inflicted upon the visual arts: Bad Art is Good Art and Good Art is looked upon with disdain. This deceit is based upon several factors, among them, a multitude of art institutions pandering to many students' desire for fast results with little effort.

Into this vacuum have sprung experimental and 'personal' art. Old principles are thought of as too restrictive of the artist's inner feelings. (The diddle here is that we dare not criticize, for how can we possibly judge the artist's soul?) So art critics and dilettantes are more than happy to underwrite this unlikely group, where anything 'expressed' is fine, and the more obscure the better.
From Harley Brown's Eternal Truths

for every artist *by Harley Brown with Lewis Barrett Lehrmann (undated). International Artist Publishing. p.12*

This lament from a financially successful professional artist is clearly a warning against what he perceives as the pernicious effects of connoisseur tribalism and special pleading in the visual arts. As a leisure painter with no pretensions to High Art, I have only just begun to mix with other leisure painters, with professional artists, aspiring Artists and Bullshit Artistes. I believe that Brown's warning is warranted, given my own experiences as I became an active new member of the Redlands Yurara Art Society. I also found my experience as a novice member (and subsequently as the President of the Society) of potential interest to the skeptical reader. I therefore decided to informally document my experience by taking notes immediately after selected interactions and exchanges with artists, tutors and connoisseurs. It should be emphasised that this was not a participant observation study carried out in my role as an academic — my basic intention was autobiographical, subjective and superficial. I simply used my ever-present PDA (an iPAQ) to record what I regarded at the time as interesting events in summary form. Dialogue was recorded as text (never audio) and was sometimes paraphrased, rather than verbatim. My purpose was to record enough material to give some personal insights into this arcane world from a skeptical viewpoint.

Special pleading: life drawing and the laxative imperative

I became a member of Redlands Yurara Art Society in mid-2003. As soon as I joined, I began attending a life-drawing studio which took place for two hours every Friday morning. A strange aspect of these studio sessions was the obvious tension between those who preferred short poses (eg, 2 minutes) and those who preferred longer poses (eg, 20 minutes). I instinctively preferred longer poses as I needed time to render a facsimile on paper of the model before me. However I did seek to understand the perspective of those who were adamant that deliberative and careful drawing was passé. Any explanations from the "short-posers" were unconvincing, and seemed to me a clear case of special pleading. Claims were made that marks on paper should be "urgent and loose". Why? Because to anyone with artistic sensibilities, it is obvious it should be that way. In my own mind, I began to characterise this flawed claim as the "laxative imperative" (the metaphor is obvious — laxatives are also associated with urgent and loose movements).

On one occasion, I turned up to what I thought was a normal studio session, but found that I had become a bemused participant in an ongoing life-drawing workshop. The tutor, a self-described professional artist, was clearly from the laxative school. He sneered at any attempts to achieve a likeness of the model, and made urgent and loose motions on most of the easels throughout the room. At one stage, he had the model emulating a pretzel, and changing poses every minute.

He even presumed to comment on my own work. He pointed out that a pose could be "captured" with only three lines, but that the lines should attempt to balance the yin and the yang. I asked him earnestly which of my lines approximated a yin, and which approximated a yang. He told me. I took note. At the end of the session I lied and said I had forgotten which one was the yin and which was the yang. He told me again — but unknowingly contradicted his earlier opinion. QED. It was also interesting to note that the instructor's drawings were (in my opinion) very poorly executed, and at no time did he demonstrate a capacity for making deliberative and precise marks on paper. I formed the view that perhaps he favoured loose marks because he was incapable of achieving a likeness with careful drawing.

I approached him at the end of the session and said (with a faux-sincere demeanour) what a pity it was that Leonardo, Michelangelo, Rembrandt and Vermeer had not known about the yin and the yang, and the critical importance of spontaneous, loose, gestural drawing. Further, I earnestly pointed out how much better their artworks would have been if they had been trained by our instructor in laxative techniques. As is often the case when I employ a dry delivery, the "target" of my barb at first thought my comments were complimentary.

Special pleading: art appraisal and the Rorschach ink-blot imperative

I was involved, in a minor capacity, with mounting a significant exhibition of paintings in the Redlands Community (southeast of Brisbane). I attended the opening of the exhibition in my capacity as President of one of the sponsoring organizations (Redlands Yurara Art Society). Happily I was sidelined during the opening and so I was free to wander around and look at the paintings, which in the aggregate were of high quality and great diversity. However I was astonished when I beheld the overall winner. I attempted a description of it using my trusty PDA. The unedited description is given below, but it is purely my personal opinion, and the work may in the future be regarded as a defining contribution to the development of Australian visual arts. And I will be regarded as an ignorant philistine.

Winner — title: Suivre, approximate dimensions about 140cm square. 90% of the surface uniform, undifferentiated off-white. Some sepia and yellow toning...vague torso. Irresistible temptation to use the laxative metaphor — or maybe regurgitation — perhaps better to leave it to the imagination. In summary: vague pale yellow and brown stains on an off-white field. Some of the surface scumbled. The painting appears as a uniform off-white square from a distance of about 8 metres.

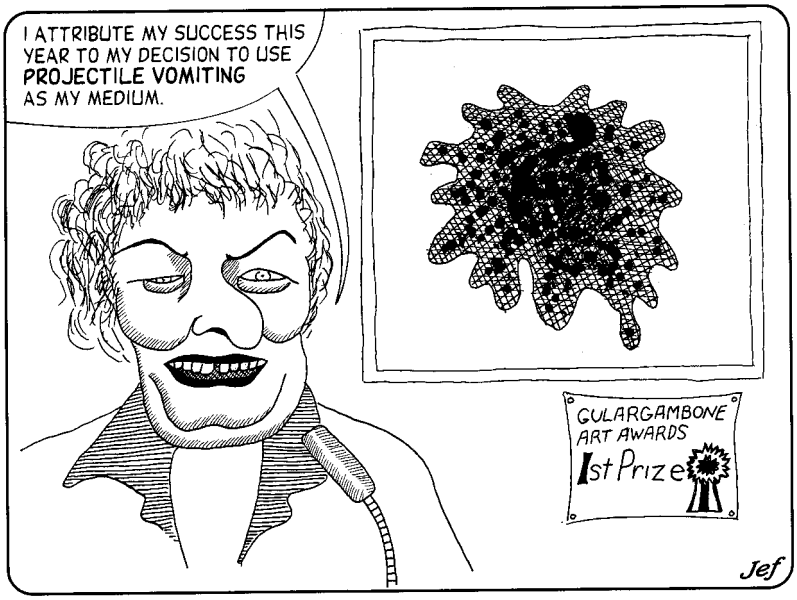
Soon after I saw the painting I examined the comments in the visitors' book. Most were complimentary about the exhibition generally, but many were critical of the judging. A sample recorded verbatim in my PDA ...

Some winning choices were very surprising. Should be people's choice, not just judges. There should be a panel of judges. Talented artists, but didn't agree with judge's decisions. Change judges next year. Terrific display but the judge must have been brain dead.

Given the bizarre choice of the winner, and some palpable unrest about the judging, I made sure I participated in a walk-around where the judge attempted to justify her choices. It took place on Armistice Day 2003. The judge, perhaps sensing some hostility among the 33 people hanging on her every word, outlined her résumé as an art professional (curatorial experience and tertiary qualifications). She then gave a summary of her reasons for selecting the winning painting. Those familiar with projective techniques as used in counselling settings will recognise the irresistible similarity between the appraisal of an abstract artwork by a deluded connoisseur and the appraisal of a Rorschach inkblot by a troubled psychiatric patient. My summary notes of the judge's comments follow:

(A judge) can only work on their own conviction... it's entirely subjective (pregnant pause, after which the judge perhaps thought better of the "entirely subjective" admission) oh not really, I use technical aspects of the work as my first criterion, then the subject of the painting, what new things it is teaching me...

I think of my mentors... how art is part of life... how the painting challenges me... very interesting, doesn't give away much... Minimal... Perhaps a figure... Here we have an area where you can't really tell what's going on... Not giving the game away... Very few gestures, (very limited) tonal... values... Looking very closely at the war in the middle east... bombing of Iraq... Abstract artists are classically trained... it's ridiculous to say that my four-year old could do that (this last comment apparently in response to a rude observation from a member of the audience).



Shadowy figure with perhaps head hanging down. The painting title is "suivre"... a pause... Perhaps...almost monochrome... Very pale tone... Surface a little scumbled, but mostly bland. ... It's very subtle in many ways... It allows your own interpretation....

Note that at the point where the judge said *'Looking very closely at the war in middle east...'* she seemed to be suffering from temporal confusion. Apparently without realising it, she resorted to post-hoc justification of her decision, because the painter's intentions were not revealed until well after the judge's decision was made. The "middle east" — "Iraq war" connection was disclosed by the artist in a newspaper interview sought by a local journalist because the artist had already been awarded the prize. The judge became aware of the artist's intentions when she witnessed the interview, and sought to validate her decision by knowingly or unknowingly conflating past and present.

Why should special pleading in the arts be challenged?

It vexes me to hear people talk so glibly of 'feeling', 'expression', 'tone' and those other easily acquired and inexpensive technicalities of art that make such a fine show in conversations concerning pictures. (Mark Twain — extract from The Innocents Abroad, *in* The Travels of Mark Twain, *edited by Charles Neider 2000 p. 181)*

To the non-involved bystander, the peculiar behaviour and silly assertions of many of those involved in the visual arts may seem amusing and trivial. However there are many professional artists out there who are trying to make a living under very difficult circumstances. To these artists, the judgements of critics, connoisseurs and self-appointed standard-bearers for the avant-garde have a direct impact on the likelihood of economic survival. It is not easy. I talked to one woman who has worked full-time as a professional artist over the last 10 years. Her net income over that period averaged $10,000 per annum. At the time I spoke to her, she had decided that she would have to abandon her artistic goals as she was no longer prepared to accept a life of destitution and hardship.

To such "breadline artists", winning a modest monetary prize at a significant regional exhibition is a welcome relief from penury. Even

winning commendations or symbolic prizes can have a positive impact on the demand for their works. Judging should therefore not be totally capricious and unpredictable. The expert, above all others, should be able to put into words a sound rationale for making a judgement. It is morally and intellectually indefensible when exhibition judges engage in self-justification based on obfuscation and special pleading ('I'm the expert you unwashed peasants, so I simply know').

How might special pleading be challenged?

The visual arts are so awash with the accumulated detritus of unfettered special pleading that significant reform from within is unlikely. Reform could only take place if those with vested interests in the status quo voluntarily engaged in critical self-examination. This will never happen. However I have one modest suggestion which could improve things at the margins, *viz*: Connoisseur-judges at art shows could themselves be judged. After all, judges with aesthetic pretensions assert that they are connoisseurs, and that connoisseurship is not a fantasy. It is claimed to be real — an intellectual and aesthetic quality. Such claims invite testing. The process described below could readily be adapted to a variety of settings and circumstances.

- The hypothetical context is a major regional art show with (say) 300 entries across a few categories. An outright winner is to be selected in each category.

- A panel of judges is selected. Each judge is presumed to have an aesthetic sensibility derived from his or her arts background (as practitioner, curator, collector, critic, art educator etc).

- Individual judges independently view all of the entries in each category. Artists' signatures are concealed for the viewing, and pains are taken to avoid cues which would enable the judges to guess accurately the source of the work.

- Each judge chooses the five best works in each category. He or she ranks his or her choices, and rates each painting or drawing on agreed aesthetic qualities. Further, the judges must complete an open-ended written judgement.

- The rating and written comments are completed before any judge has any contact with any other judge – or indeed, any other person present.

- The judges' judgements could then be collated and put on display in the foyer of the exhibition. Visitors would then be invited to comment on the judgements.

- Later, the judges' judgements, and the visitors' judgements of the judges' judgements could be compiled and included in a feature article written for the major regional newspaper. Suggested title of the article: "The Emperor's New Clothes".

I'm Right, You're Wrong

How belief interacts with a scientific world view.

Tory Shepherd is currently working as managing editor of an arts and social issues magazine and doing her Masters in Social Science.

Most people think most other people in the world are wrong. By holding a particular opinion (no God, no magic, spoon bending is pretend) you must also hold another opinion (people who believe there is a God, magic exists, spoons can be bent by mental powers, are wrong). People who follow a papal decree can't believe that Hindus have got it right. They may indulge in superficial political correctness on this issue (different aspects of the same godhead) but they must believe that their own interpretation is the correct one.

But people will always hold different opinions, wrong opinions, beliefs that most other people don't hold. And the only way for tolerance to increase, the only way to reduce the levels of righteousness — which, at its extreme, leads to terrorism and pre-emptive strikes — is through education, and understanding.

As I said in the last issue of *the Skeptic*, this path to understanding means having to go further than debunking. It means trying to understand the way belief systems work (this is not to understate the importance of debunking, of pointing out frauds and fallacies wherever they may lurk — I'm looking forward to hearing more details on the Russian girl with x-ray vision that the Internet is humming about).

Understanding believers

One way of getting closer to understanding "believers" is to look at ways in which groups reflect the society from which they spring, whether they are mainstream religions, sects, cults, or New Age beliefs. What has caused the proliferation of new religious movements, and are they really new? Is religion affected by globalisation? Do religions reflect more worldwide concerns now?

Religion has always affected national and international political concerns, through family values as much as fundamentalism. Politicians should certainly be keeping a close watch on the way that modern religious movements reflect ideas about the environment, the role of women, technological advances. I am sure many wish they'd taken more notice of signs of resurgent fundamentalism.

There is a complex dynamic of conscious and subconscious ways in which religious thinking develops. The way beliefs shift and change focus can tell us something about the society they develop from. Some factors stay the same. In some cases, the same texts are used, the same arguments and fallacies are repeated, the same desires and fears expressed — but religions are in a constant state of flux. The interpretations of the texts vary widely; the desires and fears may change.

The effects of change

How do religions reflect the world around us? How do they cope with change? Will the role of the Skeptics change in response?

One way in which religions shift is their engagement with science and methods of scientific thinking. More and more people have some kind of scientific education, which has affected the way their spirituality is expressed. They are not necessarily becoming more scientific, but operate both within and against it. Just by being aware of scientific methods, beliefs have to change, whether this is to reject or incorporate those methods.

Believers often appropriate scientific terminology, and adapt it for their own uses; many Wiccans speak of 'biofeedback' (a 'scientific' term for Jung's collective unconscious). UFO believers often take Drake's equation as 'proof' of extraterrestrials, and use the 'nodular discrepancies' of crop circles to show that they have visited Earth. They are working from within a scientific ideology, and are aware of its methods. People feel more comfortable holding spiritual beliefs if they can cite studies they have read about to back them up; and with the huge volume of information available on the internet, there is always a study to back you up.

Take an article I spotted in *The Age* last week — a "miracle" recovery for a baby led a journalist to claim that '*In the evidence-based nature of medical practice, where science is gospel and pills replace prayers, doctors are increasingly acknowledging the health benefits of religion and faith*'. There is a brief disclaimer that this maybe 'partly due' to the lifestyles of particular religion, but overall the article seems to be suggesting a possible paradigm shift in the way medicine views religion — and, of course, the language used is pseudo-scientific. '*People may well be 'emitting a 'brainwave' while praying, which induces a positive effect upon being 'absorbed by the receiver' and analysed as a positive input*.'

But what interested me most about the article is that it mentions that over the past 10 years, more than 1200 studies on the relationship between religion and disease have been published. 1200! So that would seem to indicate that many people are aware of the need for scientific validation for their philosophies that they are less willing to rely solely on faith — or maybe just less willing to appear to be doing just that.

Effects of technology on belief

Perhaps the most obvious example of how technology and scientific knowledge change belief systems is the things that people see in the sky — the shift from angels to UFOs. UFOs have become a symbol of our stage of societal development. Carl Sagan once asked '*in a scientific age what is a more reasonable and acceptable disguise for the classic religious myths than the idea that we are being visited by messengers of a powerful, wise and benign advanced civilization?*' (*UFOs: A Scientific Debate*).

There are many similarities between the beliefs of people who saw angels, and those who see UFOs. They are both messengers from another place, a place of superior beings. But the UFO believers are from a society where science is a dominant ideology.

The Ancient Astronaut Theory, made famous by Erich von Daniken (is he still around?) can be seen in the majority of UFO cults. The core of the theory is that at some stage in our evolution, aliens (who are superior to us in intelligence, technology, and usually looks as well) mated with hominids to produce homo sapiens.

This mythology of the origin of humans is a fascinating amalgam of scientific theory and Christian creationism. It is a hybrid, a chimera. It rejects exactly that part of evolutionary theory that has caused the most controversy — the emergence of self-aware intelligence (I once heard this defined as "any species who sends birthday cards") — while retaining the most commonly accepted parts. It 'explains' all sorts of complexities such as the 'missing link' and the 'giant leap forward'. It has earned von Daniken sales of over 4 million copies of *Chariots of the Gods?*.

Is this pseudo-science really a flawed attempt at science, the results of inadequate education, or the lack of critical thinking? Or is religion in a totally different sphere? Gould's 'non-overlapping Magisteria'? I think it's more complex than any of this, which is why it is so important to study and analyse this area.

Believers are not operating in a vacuum. They are engaging with scientific thought; while this is often done incorrectly, sometimes they are honestly trying to meet its standards, though usually they pick and choose which bits suit them. People look at the world around them, incorporate some aspects, and reject others to recreate a micro-world they can believe in.

I have to believe I am right — that science is the best way to understand the world because it can be tested against an external reality. I think that people are wrong to believe in the supernatural, but that we have to keep trying to understand why most of the people in the world do just that.

AltMed and Anti-science

Why are our universities teaching anti-science?

David Brookman is a lecturer in medicine at the University of Newcastle. His concern is that many medical students begin with a profound belief in AltMed, and some graduate with that belief unshaken.

It is sometimes claimed that scientific medicine and unscientific health services (altmed industry) provide the same service from an economic and social aspect and are thus equivalent philosophies. We even have Universities offering baccalaureates in applied science in chiropractic, osteopathy and naturopathy (a wonderful oxymoron), and government departments accepting certification of illness from altmed practitioners.

Even more concerning are the large numbers of medical practitioners, with training in scientific medicine, selling the nostrums of folk medicine and quasi-religious belief systems regarding health, and obtaining taxpayers money for providing these "services".

Marketing of these remedies is driven by two streams of thought — paranoia about big business control, and absolutism — and is promoted by an absence of critical thinking about both scientific medicine and the altmed industry.

The nature of AltMed

Alternative medicine covers a wide range of alleged health services which are varied in origin. Some have been invented within the last century, some are older, and a few have ancient tradition. The ancient ones — Herbalism and traditional Chinese medicine (TCM) — are derived from an oral and written tradition in which in which various herbs and nostrums were tried and when someone recovered it was attributed to the nostrum and reported to colleagues. This, of course, is distorted by the placebo effect.

In the past few years these remedies, described in traditional tomes of herbal nostrums, have begun to be tested scientifically (some had been previously assessed by pharmaceutical companies for extractable pharmacologicals) and some have been found to work, but I will leave it to readers to check this for themselves, using the Cochrane database[1].

Many herbal preparations have been shown to be ineffective, and some dangerous. Combinations of herbal preparations with pharmaceuticals have caused major morbidity and even death.

Other altmed industries have been invented by individuals, some of whom have been medical practitioners (see Quackwatch website[2]). These have several means of development:

- An observed benefit has occurred in an individual which has been explained by the founder with

a new theory of therapeutics (eg, chiropractic, osteopathy);

- A person has developed a profound belief (perhaps stimulated by the prospect of making a buck out of the belief) in some remedy and then developed a therapeutic theory to market the remedy (Mora machine, electrodiagnosis, chromotherapy, aromatherapy, iridology);

- A person uses prestidigitation to work magical cures (faith healing, psychic surgery, etc);

- Variations on simian grooming behaviour (massage, reflexology, acupuncture, etc).

Many of these have been tested, particularly the diagnostic ones, and have been shown to be fraudulent but the practitioners are still permitted by consumer watchdogs to continue. Others remain in an unproven state because of the difficulty in constructing suitable experimental and quasi experimental tests — this applies in particular to the variants of simian grooming.

If these vendors of remedies are to be regarded as philosophically equivalent to science based medicine we need to compare their methods, because regrettably, practitioners who claim to practice science based medicine all too often appear to be swayed by the claims of such vendors.

Belief

The primary test is "belief". It is claimed that people need to believe in science and that people who do not so believe have the right to believe in alternative explanations of the world. People who are not socially destructive have a right to believe anything they wish, but our society accepts that this right does not extend to brainwashing techniques of recruitment, nor does it accept that vendors have the right to falsify information about a product or service they offer for sale.

If medicine and altmed are equivalent philosophically then both should be discarding remedies proven to be ineffective, and inappropriate. Does this occur? Obviously if the belief system of altmed practitioners does not include the scientific method then they will continue to market useless nostrums.

So what elements of scientific method can we find in both, or one group.

Critical Thinking

The absence of critical thinking is necessary for both consumer and vendor to develop a profound belief in the nostrums being offered. If a person is issuing a nostrum in which both therapist and user have a profound belief, will the therapy ever be seen to fail? Even if the disease progresses it will not be attributed to lack of efficacy in the treatment. Medical practitioners and altmed practitioners both fall into this trap, the difference with medicine being the the existence of a hierarchical structure which makes it more likely that persistence with an ineffective treatment will be detected and corrected; and hopefully, the erring practitioner educated.

Some authors acting as a mouthpiece for the altmed industry have criticised this hierarchical structure of medicine as a social construct to keep "natural healers" out of the marketplace. Valid criticism of methods and techniques of altmed practitioners are dismissed as merely negative advertising for marketplace dominance. This is once again a manifestation of quasi religious credulity. The criticism of the medical profession in acting to limit marketplace entry to maximise profitability is sometimes valid.

The practitioner who applies critical thought will know that we exist in a probabilistic world and that there is no place for absolute certainty. A diagnosis is made and progress reviewed; if the progress differs from the expected then the diagnosis is reviewed. Diagnosis being a classification label we apply to an interpretation of a set of patient memories and practitioner observations for the purposes of communication — it is not irrevocable.

Our society is educationally biased toward credulity, after all critical thinkers may question the precepts of politics, religion, the law, the press, employers; and, most importantly, might become resistant to advertising. This absence of critical thinking is addressed to some extent in various medical schools in Australia, but the preceding years of "education" have already limited the capacity of many of our students to develop this skill.

A practitioner who is practising scientifically will ensure that the patient understands the degree of uncertainty in any diagnosis, and how further investigations may add to or subtract from the probability of diagnostic accuracy.

Do altmed practitioners behave this way? I suppose we have to address the motives of people who launch themselves into such a career and somehow gauge the extent of belief in the remedies they peddle.

The Fraud

A peddler of altmed, who has no belief in the remedies he flogs, regards themselves as selling a product to a customer. This product or service needs to be innocuous (*primum non nocere*), and must be believed in by the customer, so efficacy is unnecessary. Such an altmed practitioner is merely a salesperson, and they become dangerous when they claim cure where none is proven to exist. Such a person is not constrained by ethical principles and they will mislead the credulous. The first line they will deliver to the sucker will be along the lines of *'if only you had brought him to me before 'the doctors' started poisoning / misdiagnosed / cut him open / irradiated him, I might have been able to save him, but I will try.'* This opening gambit is essential to the fraud as it establishes that failure as an outcome indicates that the practitioner is wonderful but cannot undo the damage done by practitioners offering different services. It establishes guilt in the carer and hope in the sufferer, maximising the chance of them returning and paying.

With subsequent visits the guilt

and hope will be reinforced, and improvement shown where none exists. The improvement may be in symptom reduction (the practitioner may record these) the customer never will, so it is easy to report an improvement. At some point the victims deterioration will become obvious and alternative intervention may be sought, but it is unlikely that the altmed fraud will be blamed because of the opening gambit.

The True Believer

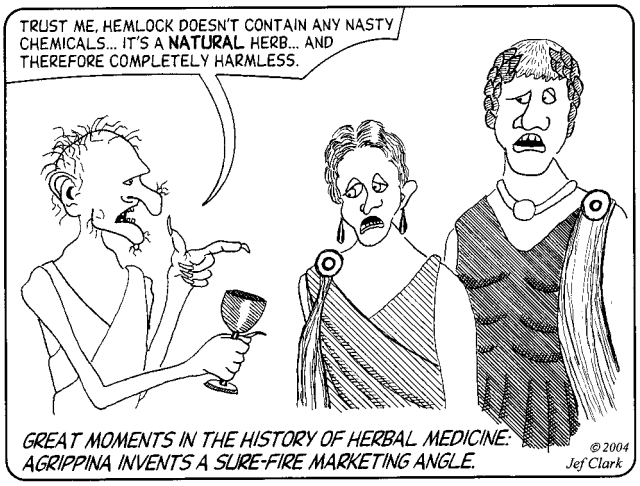
Practitioners who believe completely in the remedy they are flogging may use the same gambit as a protection of their belief in what they are peddling rather than with fraudulent intent, so it is not a useful tool for discrimination. They are more likely to refer the client when it becomes obvious that deterioration is occurring because their interest is not simple avarice. Of course if the belief if so complete, to exclusion of any self doubt, referral will not occur for the deterioration will not be seen.

In neither of these models of altmed is there any room for critical thinking. The fraud may well have a cynical view of health care interventions in general, but will never admit this or it will harm business. Critical thinking is mutually exclusive of profound belief, but may develop to some extent where it does not threaten the belief system.

The second essential gambit used by both extremes of altmed practitioner is to have a pseudoscientific explanation for the avowed therapeutic benefit. This should be derived from variations of basic biology that the suckers will learn in school — a classical example is "washing" the liver free of toxins. A basic item learnt in biology at school is that the liver detoxifies chemicals derived from food, herbs and medicines, so to get the suckers in make a shift in the concept of chemical detoxification to that of a filter which accumulates the agents it removes from the body, then we can flog off a diet to "cleanse" the liver.

Refuted remedies

The pseudoscience varies with the flavour of remedy being offered but the opportunities are immense: This is a brief list of naturopathic remedies listed on the Quackwatch website[2]:



- **Aeropathy**: baking the patient in a hot oven;
- **Alereos system**: spinal manipulation plus heat and mechanical vibration;
- **Astral healing**: diagnosis and advice based on reading the patient's horoscope;
- **Autohemic therapy**: giving a solution made by modifying and "potentizing" a few drops of the patient's blood;
- **Autotherapy:** treating infections with potions made from the patient's infected tissues or excretions;
- **Biodynamochromic diagnosis and therapy:** administering colored lights while thumping on the patient's abdomen;
- **Bloodwashing** with herbs;
- **Chromopathy:** healing with colored lights;
- **Electrotherapy** with various devices;
- **Geotherapy:** treating disease with little pads of earth;
- **Irido-diagnosis:** diagnosis based on eye markings — now called iridology;
- **Pathiatry:** self-administration of spinal adjustment, massage, and traction;
- **Porotherapy:** treatment applied through the pores of the skin to the nerves said to the control internal organs;
- **Practo-therapy:** a fancy term for intestinal irrigation;
- **Sanatology:** based on the notion that acidosis and toxicosis are the two basic causes of all disease;
- **Somapathy:** spinal adjustment followed by applications of cold or extreme heat;
- **Tropo-therapy** with special nutritional foods;
- **Vit-O-Pathy:** a combination of 36 other systems;
- **Zodiac therapy:** combining astrology and herbs;
- **Zonotherapy (now called reflexology):** pressing on various parts of the body to heal disease in designated body 'zones'.

Medical jargon

The third gambit is to use medical jargon — television has exposed the general population to a lot of this and it makes the altmed practitioner appear genuine if they use a lot of this terminology — it does not have to be appropriate because the suckers will not know. The target group will have limited scientific background, they may be interested in "popular" science which offers "Gee Whiz" news items on science but no real discussion of scientific method or uncertainty, hence throwing in jargon from scientific areas adds

power to the spiel. Medical practitioners are treated similarly by pharmaceutical detailers offering their spiel generated by the advertising departments.

Hidden benefits

The fourth gambit will be claims of hidden, unknown or magical benefit which "orthodox" science cannot explain.

In each of these gambits there is no attempt to practice scientifically — the technique is no different from other sellers of services from prostitutes to insurance.

Get the customer to believe in the product:

- denigrate the opposition;
- create an impression of product superiority;
- make the product you are selling unique;
- close the deal, get a commitment from the client;
- and reinforce product efficacy as long as possible, while always having an escape route.

Knowledge derivation

Medicine is empirical — that is, it is derived from observation and is not based on a theoretical philosophical structure. It has evolved from herbalism and anatomy and surgery, by applying scientific method beginning with William Withering who attempted to standardise tincture of digitalis, to the application of randomised controlled trials and meta analysis — it still has some elements of unscientific practice based on belief and tradition. But this does not mean that an absolutist rejection of medicine is appropriate. Herbalism and traditional Chinese medicine are derived from oral or written observation of individual cases — such an approach is inherently biased by: the placebo effect, the "standing" of the author, their language capacity, their social isolation and the strength of their belief in the allegedly successful remedy.

Scientific medicine attempts to avoid this trap by using quasi-experimental methods to minimise bias

The alternative is to interpret observations according to a theory — this is reification. Examples of this process are Freudian psychiatry (which was taught to me as the basis of mental illness), and the social application of IQ testing. This is also what occurs with those forms of altmed not derived from a written or oral tradition of case reporting.

Always make the patient fit the theory

A scientific approach to health care rests on doubt; the practitioner may well use a classification system to make a therapeutic choice, but both she and her patient need to be aware of the uncertainty of the classification, and the therapeutic path chosen. We can use the tools of clinical epidemiology to measure the levels of uncertainty sometimes.

Where a health philosophy begins with a theory, all diagnosis must be made to fit the theory irrespective of conflicting information (which must be ignored). As an example chiropractic theory deems that back pain is due to subluxation of the spinal joints, but anyone who has dissected a human spine would realise the impossibility of such an event[3].

Joints can sublux when the supporting tissues are damaged by disease (rheumatoid disease for example), or if the structures are immature (the annulus supporting the radial head at the radiohumeral joint). If such a subluxation were to occur in the spine there is a high probability of neurological damage.

The magical cracking that chiropractors can induce can also be elicited by an individual on themselves without resorting to a pseudoscientific consultation. What chiropractors also do is provide massage and passive stretching of muscles with increased tone which has been shown to reduce pain in the short term.

Medical practitioners also apply manipulative therapy where circumstances warrant — an example is the acute radiohumeral subluxation in a child (pulled elbow) — the child will be crying holding the affected arm in a flexed position neutral pronation, they will have been subjected to traction and rotation of the forearm (picking up by the arm is a common cause).

Does the practitioner assume this is the cause from the observation alone — they obtain a history of the injury, they examine the child because their initial hypothesis could be wrong. The examination must be gentle — there could actually be a fracture and treatment requires winning the trust of children. If reassured of the high likelihood of the diagnosis, a quick supination pronation of the forearm will produce a satisfying click, a yelp from the child, and immediate restoration of use of the arm and if it does not, then review the initial hypothesis.

I was not taught this at University, it was too simple, it was a skill I acquired through observation of a child in a casualty department, plus reading to obtain others' observations, reports, and discussion with my colleagues. I learnt by observation, testing and review — not by moulding a clinical circumstance to fit a theory.

If most altmed begins with the precept that their theory is correct how can they apply scientific method? This applies to all altmed groups except for herbalism. Herbalism differs in that some of its offering may actually work but its tradition of shunning scientific evaluation, and avoidance of standardisation, makes its general application risky.

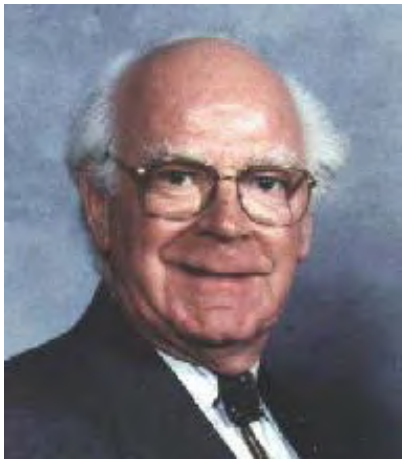
Debasing education

If the basis of the altmed industry is not the application of scientific method, and is in fact the antithesis, how can our publicly funded Universities be offering degrees in applied science in these fields? Leading the way are pharmacy departments offering training in herbalism. I have no doubt they justify their offering of these courses (apart from

Continued p 30 ...

Skeptical Inquiry v Fraudulent Science

Science is concerned with evidence, not consensus.



Colin Keay is a physicist and astronomer who strives to keep the debate about nuclear energy within the bounds of reason.

Let me be clear: the work of science has nothing whatever to do with consensus. Consensus is the business of politics. There is no such thing as consensus science. If it's consensus it isn't science. If it's science, it isn't consensus. Period.

Michael Crichton, the 2003 Caltech Michelin Lecture.

The strength of science resides in its dynamism: the continual improvement of its theories and the empirical evidence supporting them. That notion convinced me, when I was an apprentice scientist, that unrealistic schemes —"free" energy, for example — must inevitably wilt and die in the face of hard evidence to the contrary. Alas, I had not then appreciated the full extent of human gullibility, often deep enough to lead to a sort of populist consensus that mysterious forces, for example, exist and science does not understand them. The mass media happily reinforces such oddball beliefs with scant regard for scientific skepticism.

Worse still, there has been an upsurge in new non-deist religions, ranging from the obnoxious Holy Temple of Political Correctness to the sanctimonious Green Church of the Sacred Environment. The high priests of these post-modernist sects are, like their godly predecessors, totally intolerant of any opposing views, regardless of the volume of hard evidence supporting them. And that is exactly where science and skepticism collide with fundamentalist enviro-beliefs — fact versus fabrication.

Skepticism is far more than ghost-busting or the exposure of foolish shams and fiscal scams. True skepticism has to be universal. Confidence tricks of any stripe must be targets of investigation, otherwise skepticism will remain a fringe activity — only marginally relevant to the real world. If there is any subject for skepticism surpassing all others in its importance for the future of humanity, it is the matter of adequate energy supply while preserving our

environment. This is as true for us as it is for plants and plankton at the base of the food chain. Yet the Australian Skeptics is the only skeptics organisation I know of that pays any regard to the global con-job that piously parades under the sham slogan of "alternative energy".

In *the Skeptic* (17:4, pp. 45-49) back in 1997, Barry Williams set the ball rolling with his article "Getting the Energy", which placed in perspective the various means of powering homes and our industrial economy. By the turn of the century I was getting so worked up about the lies and misrepresentations of the Green Church of the Sacred Environment (GCSE) that I wrote several articles on the subject for *the Skeptic*. Mainly stemming from convention talks, they in turn led to the publication of four booklets in a Nuclear Issues series aimed at providing politicians and public with reliable pro-nuclear energy information.

One may say that *the Skeptic* is one of the few journals keeping abreast of the unfolding scandals affecting the GCSE. One of the worst came to a head in June, 2000, and was alluded to in my article "The Dirty Thirty, Part 1" (*the Skeptic*, 21:1, pp., 53-56). In the years since the Chernobyl disaster the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) has been closely monitoring its radiation effects. According to committee member Professor Zbigniew Jaworowski:

> *UNSCEAR dared in 2000 to state that practically no adverse radiation effects were observed among the post-Soviet population exposed to Chernobyl radiation, and that no genetic effects have been observed in the children of Hiroshima and Nagasaki survivors.*

This was heresy to the GCSE. As a result UNSCEAR's budget was vindictively slashed and its activities all but stopped (*Physics Today*, October 2002, p.26).

Well guess what, UNSCEAR's budget had been under the control of the United Nations Environment Program. Several scientific publications raised an outcry, leading the General Assembly to urge a rethink and restoration of funding to UNSCEAR after a two-year hiatus in its activities. Jaworowski hopes that UNSCEAR:

> *... will resist the pressure of environmentalists and return to its traditionally neutral, independent and rational position on this topic (*Physics Today*, June 2003, p.14).*

Jaworowski draws attention to UNSCEAR's role in resolving basic issues concerning the effects of ionising radiation on humans and the environment, pointing out that old concepts are gradually giving way to new findings in the field of radiation protection. Hormesis effects, where chronic radiation exposure brings health benefits, are now well established (see my article "Arsenic and Radiation", in *the Skeptic*, 19:3, pp., 14-17. Also my book *Nuclear Radiation Exposed - A Guide to Better Understanding*, The Enlightenment Press, 2001. ISBN 0-9578946-1-9) and consolidated in what has been descibed as a *'brilliant commentary'* in *Nature* ("Toxicology rethinks its central belief", E J Calabrese and L A Baldwin, *Nature* 421, pp., 691-692, 2003). This landmark paper claims to have identified up to 5,000 examples of hormetic responses, among them the effect of low levels of x-rays and gamma rays that can reduce tumours and enhance lifespan in various species. This conclusion explains why those living in abnormally radioactive apartment blocks in Taiwan are far healthier than residents in uncontaminated blocks. And this in turn shows that the forced evacuation of Pripyat, near Chernobyl, was not only unecessary but deprived the inhabitants of a positive health benefit!

The Taiwan Incident

The Taiwan incident is not widely known. It does not conform to consensus science so the mass media have been disinclined to give it the prominence usually reserved for radioactive scares, not for good news about radiation effects. But as skeptics we demand evidence — the facts about what really happened in Taiwan.

In 1982, 180 ferro-concrete buildings, comprising around 1700 apartments, were built using steel reinforcing unknowingly contaminated with cobalt-60 from a discarded radiation source. It was not until ten years later that the elevated levels of radioactivity were discovered. However, with no evidence of harm, most occupants remained, even though their annual doses were measured in the range from 20 millisieverts up to as much as half a sievert. The normal global background level is around 3 millisieverts a year. Anyone receiving half a sievert in one hit would suffer radiation sickness, but spread over a year no symptoms appear. Some of those exposed for the longest time had accumulated a total dose of 6 Sieverts, which would be fatal in a single dose.

Scientists from nuclear and radiation protection organisations in Taiwan began a close study of nearly 10,000 of the apartment dwellers exposed for up to 20 years and began to discover astonishing health benefits of prolonged radiation exposure. In poster paper P78 at the 48th annual meeting of the Health Physics Society in San Diego last year, 14 Taiwanese radiation experts reported their results. Whereas the predicted mortality derived from Taiwan vital statistics for the group would be about 217 cases of cancer, the group had only 7. The number of hereditary defects predicted was 64, but only 3 were found. These hard facts spectacularly confirm the reality of radiation hormesis because the currently adopted radiation danger criteria would indicate hundreds, if not a thousand or more, cancer deaths in a cohort of 10,000 exposed to such elevated levels of nuclear radiation. It appears that elevated levels of background radiation actually immunises people against cancer!

These highly significant results could not have been obtained had the Cobalt-60 contamination not happened accidentally. There is no way any regulatory authority or ethics committee would have approved an experiment subjecting 10,000 people to such high levels of ambient nuclear radiation, way beyond regulatory limits. And if such approval was granted, green groups would have gone ballistic. As it is, there have been two law suits by 8,000 residents seeking government compensation, based on anxiety and property loss, not medical grounds like cancer mortality!
Scaremongering and the prospect of money obviously motivated the plaintiffs, who were successful, but it is interesting that in both hearings the cancer evidence and health benefits were not argued (the above details are from a February 2002 email by Y-C Luan, one of the 14 authors of the P78 poster paper).

The Lomborg scandal

Another affair where consensus science has ridden roughshod over the facts is the Lomborg scandal. When the January 2002 issue of *Scientific American* arrived I was so appalled by the immoderate hatchet job on Lomborg's comprehensive book, *The Skeptical Environmentalist,* by four gurus of the GCSE that I went out and bought a copy. I can't pretend to have read all of it, but enough to seriously consider terminating my 4-decade subscription to *Scientific American*. Instead I wrote a letter of protest which *SciAm* did not publish, probably because it was just one of many. *SciAm* denied Lomborg right of reply and when he set up a website rebuttal of their charges they threatened him with breach of copyright. For daring to publish the book, affronted Elders of the Green Church condemned the Cambridge University Press, one of the world's oldest and most respected publishing houses. The full text of Lomborg's response to *Scientific American* is at www.greenspirit.com/lomborg.

Then the Danes themselves appeared to condemn Lomborg. Early in 2003 the Danish Committee on Scientific Dishonesty (DCSD) ruled that:

> *Objectively speaking, the publication of the work under consideration is deemed to fall within the concept of scientific dishonesty .... the publication is deemed clearly contrary to the standards of good scientific practice. (www.forsk.dk/uvvu/nyt/udtaldebat/bl_decision.htm).*

Nearly 300 senior scientists protested this blatant example of consensus science overriding conclusions based on Lomborg's independent analysis of published evidence. Then, in December 2003, the Danish Ministry of Science, Technology and Innovation repudiated the DCSD judgement, finding that it lacked substance and could not withstand scrutiny (a summary in English may be found at www.imv.dk).

It is revealing to look back at the reviews of Lomborg's book in our own journal. In January 2002 Professor Ian Plimer reviewed it favourably (*the Skeptic*, 22:1, pp. 48-50), thereby provoking a damning counter-review by Professor Ian Lowe (*the Skeptic*, 22:4, pp. 61-63), who charged Lomborg with selectivity in his skepticism. I am relieved that the Danes have at last vindicated Lomborg and in so doing upheld Plimer's review rather than Lowe's (the latter almost led me to cancel my *Skeptic* subscription!).

There are many battles to come in the struggle between the beliefs of consensus science and the inconvenient realities of the world we live in. Nature does not care for matters of belief. Michael Crichton addresses this conflict very nicely in his Michelin Lecture at Caltech, obtainable at www.crichton-official.com/speeches/speeches_quote04.html. It is intellectual food and drink for all serious skeptics.

... AltMed from p 27

in a financial way) in that they will induce change in relevant industries toward the application of scientific method. I suppose the same argument could be applied to making evolution a compulsory subject for all theology courses, for then obviously all theology fundamentalists would then no longer teach the theory of creationism as the truth.

Universities offering BAppSci in unscientific health services:

University of Western Sydney
University of Technology Sydney
Queensland University of Technology
Victorian University of Technology
Royal Melbourne Institute of Technology
Southern Cross University
Macquarie University
(*B.Chiropractic Science!!! – what a great oxymoron*)
Newcastle (B Herbal Science)
New England (part)
Murdoch

Universities offering diplomas in unscientific health care

Sydney
Queensland
Macquarie (also a post graduate Masters degree in chiropractic "science")

Unfortunately the financial attacks on our Universities have produced a blossoming of tertiary labels, but the whole philosophical basis of altmed is not only non-science, it is anti-science. Perhaps if the Universities feel it is necessary to offer training in these areas the degree should be from the Department of Arts and not provide a further disguise for an industry rife with fraud (but is very profitable).

Notes

1.http://www.update-software.com/cochrane/

2. http://www.quackwatch.org/

3.A Scientific Test of Chiropractic's Subluxation Theory, Edmund S. Crelin, Ph.D.
http://www.chirobase.org/02Research/crelin.html

Quackery Down Under

The text of a presentation given on January 16, to James Randi's Amazing Meeting in Las Vegas.

Peter Bowditch, VP of NSW Skeptics and arch anti-quack, would not still be with us if witchcraft and voodoo really worked.

It will be Australia's birthday the day after I get back home next week. January 26 marks the 216th anniversary of European settlement of the continent. There were several significant events of a scientific nature which contributed to Arthur Phillip raising the flag in Sydney Cove on that day in 1788, and I want to talk about three of them today. I have to admit a degree of personal disappointment that I couldn't include Nathaniel Bowditch's recalculation of navigation tables as one of the scientific advances, but he didn't publish his work until after 1800 and I don't think this is the forum to promote the idea that James Cook and Arthur Phillip were psychic.

History

Science was the reason that James Cook was in my part of the world in 1770. The purpose of his trip was to observe the transit of Venus across the sun on June 3, 1769. To conform with the long tradition of hardship suffered by astronomers, Cook and his crew were required to hang around Tahiti for three months in order to make a six hour observation.

Two great traditions of our society were incidental results of Cook's Tahiti trip. The first was that the crew became so bored with having nothing to do except spend time with dusky south seas maidens, that they invented the tradition of sailors getting tattoos. The second was the invention of the good-news-bad-news joke. In this case the good news was that the weather on June 3, 1769 was absolutely perfect for watching planetary transits. The bad news was when Cook opened his sealed orders and instead of reading *'Good work, lads. Put down those maidens and come home'*, he saw instructions to spend the next two years looking for the great southern land. After mapping New Zealand and most of the east coast of Australia, Cook sailed to Batavia (which is now Jakarta), where a third of the people on board the Endeavour promptly died of malaria.

The second scientific advance that contributed to European settlement of Australia was the invention, by John Harrison, of the chronometer. Cook carried one of these devices on his second and third voyages, but he didn't have it on his first voyage because there was a fight going on between Harrison and the Admiralty over payment. This meant that the accuracy of his location was not as good as it might have been and he could have been up to about 40 miles out in calculating longitude, which is still pretty good

Where the chronometer had its influence was that it allowed the first settlers to sail to Botany Bay and

know exactly where they were going and how to get there. Arthur Phillip and his eleven ships and 1490 people did not follow or backtrack along Cook's route. They went to Tenerife, Rio de Janeiro, Cape Town and Botany Bay. Six babies were born on the way, and four survived. About 40 of the original group which set out from Portsmouth died during the eight-month trip.

The third scientific advance is the most important of all. It was what made it possible for Cook to sail for months in unknown parts of the world, and which allowed a trip of eight months with such a low death toll. (Eight months can be a very long time. I have been told that it took about that long to make the Grand Canyon.) The significant event happened in 1747, and it was the invention of the clinical trial by James Lind who used it to conclusively prove the efficacy of citrus juice in the prevention and treatment of scurvy.

Before I finish the history lesson, I would like to mention Matthew Flinders. He was the person who gave the name Australia to the island and he and his companion, George Bass, were the first people to circumnavigate the continent, proving that it is an island. Among the collection of Flinders memorabilia in the New South Wale State Library is a letter from Flinders' wife giving him permission to remarry if she died. The reason that she was worried about dying was that she was pregnant.

You might wonder what all this history has to do with the state of quackery in Australia today.

Quackery in Australia

One third of the children born on the First Fleet died, and Ann Flinders saw childbirth as a real death threat, but we have active movements in Australia opposing hospital births and even an organisation devoted to stopping Caesarean deliveries. Cook lost 30 out of 90 people to the pestilential disease malaria in 1770 and the smallpox carried by the first settlers devastated the Aboriginal population, but we have an active and virulent anti-vaccination movement who want to take us back to the time before protection against disease was possible. More than 250 years after Lind tested fruit juice, spokespeople for alternative medicine have said that it will bankrupt the industry if they have to test their products or show that they work. The industry claims to be self-regulating, but their idea of regulation is to have no regulation at all. There is an industry body, the Complementary Healthcare Council of Australia (CHC), which is supposed to be part of the regulatory apparatus, but a few examples of its work will reveal the true situation.

I have three magazines here. The first (*Informed Choice)* is put out by Australia's leading anti-vaccination liar group (yes, there is more than one). As well as the anti-vaccination rubbish it contains advertisements and editorial promoting various forms of quackery. It carries an advertisement for another magazine (*Living NOW*) with the same sort of rubbish inside. An even more worrying example is *Sydney's Child*. It is a serious and useful magazine directed at parents of young children, but the ads for professional services at the back include homeopaths and chiropractors offering cures for autism, asthma, bet wetting and any number of other things. If you wonder how self-regulation is working, the Executive Officer of the CCH told a public meeting last year that she was unaware that such magazines and advertisements existed. Somehow, I found it hard to believe her.

Self regulation

In a brochure titled "Advertising Complementary Healthcare Products" issued by the CHC, it states that:

> *by law, all advertisements for therapeutic goods and CHPs (complementary healthcare products) appearing in specified media (newspapers, magazines, cinemas and outdoor) or broadcast media (television and radio) must be approved prior to publication or broadcast. Advertisements in newspapers and magazines must display an approval number as part of the advertisement.*

These approvals are granted by the CCH itself. In the three magazines mentioned above, only one advertisement carried an approval number. This was an advertisement for capsules which each contained a "billion live friendly bacteria" and which were supposed to be given to infants. Perhaps it is true that the CCH is unaware of these magazines but whether this is true or not does not detract from the fact that self-regulation is a farce.

I have a collection of zappers and other magnetic, electrical and sonic devices. These things are supposed to be able to cure all sorts of ailments like cancer, AIDS, MS and diabetes and are advertised in alternative medicine magazines, but the CCH says that it is not in the least bit interested in these devices. (I only brought a photograph of these things with me instead of the real objects. I thought I could reasonably accurately predict the reaction of customs officials when confronted with a manic ratbag carrying black boxes with switches, red lights, wires and timer displays. Then they would ask me what these things did, and I would truthfully answer 'Nothing'. Guantanamo Bay!)

The government suggested that it was deceptive to include the words 'drug free' on the label of potions with pharmacological effects, and the reaction of the industry was:

> *Passage of TGR Amendment No.401 through the Senate would be a denial of our democratic right for responsible and commonsense information on complementary medicines. www.iahf.com/asia/drugfree.html*

You will notice that this was reported on the web site of the International Advocates for Health Freedom. You might like to see what the head of that body, John Hammell, had to say about people like me. Apparently we ...

> *... are in constant communication*

with the FDA, and the FDA's international counterparts which are all networked via the UN's International Council on Drug Regulating Authorities — which is run directly by the Council — he Illuminati — the small group who seek total control of our lives and who are pushing very hard now to impose a dictatorial world government on us via the UN, whose chief is Satan, the father of lies — who is making a major bid right now to control all of our souls as he seeks to force us into a microchipped, psychocivilized society under mind control.

I find that quite encouraging.

When changes to advertising rules were suggested, this was going to cause much distress.

The advertising review has removed a lot of previously prohibited claims and introduced a system which allows a wider range of claims so long as they are balanced, truthful and not misleading. However, many claims that have been accepted for ten or more years are no longer acceptable and there is a real danger that many multi-component products will be lost as industry has 4 years to comply with the new requirements. www.iahf.com/vit_trade/20001015.html

So here you see the industry admitting that for at least ten years its members have been making claims that are unbalanced, untruthful and misleading and instead of promising to clean up the act they want more than four more years to stop lying.

And the last policy statement from the Complementary Healthcare Council:

The main objective of the CHC position is to get out of the pharmaceutical paradigm that is crippling the industry and denying consumers' access to products that are freely available in other comparable countries. www.iahf.com/vit_trade/20001015.html

There are two possible interpretations of the expression "pharmaceutical paradigm". One is that it is the paradigm which says that products should be thoroughly tested and be shown to work before they are sold to the public. The other is that science should be relevant to research and the pursuit of knowledge. It says much that following these principles might result in *'crippling the industry'*.

When Pan Pharmaceuticals was closed down early last year because of bad manufacturing practices, the response of the industry was not to support action to ensure that only quality products were delivered to the public, but to lie about the products that Pan made and to lie about what had been recalled. One classic lie was that the product which triggered the action by the Therapeutic Goods Administration was a prescription drug which had nothing to do with natural or alternative medicines. One professional naturopath announced that *hyoscine hydrobromide*, the active ingredient, was obviously a chemical and appeared nowhere in her professional naturopathy books. It fell to me, a mere quackbuster, to tell her to look under 'henbane'.

My state government set up a committee last year to investigate the more egregious forms of quackery, and the industry response was not to welcome a rooting out of the crooks, but to launch immediate *ad hominem* attacks on anyone who could be identified as having anything to do with the committee. I well remember a post to a Usenet newsgroup with the title "The EVIL workings of Peter B.??". The response united the anti-medicine crowd, with the anti-vaccination liars issuing press releases on behalf of the cancer quacks and live blood analysts and vice versa. I even got mentioned in Parliament!

Current state

So, what is the current state of quackery? Everything went quiet for a while last year, but that did not mean that the good guys could become complacent. When the government announced a tightening of the rules, the lies and distortions started up again, with ridiculous claims that any testing of claims or proving of efficacy would bankrupt the alternative medicine industry. Put another way, they say they will go broke if they have to do what James Lind did in 1747. The latest salvo coincidentally appeared just after I announced the formation of the Australian Council Against Health Fraud, and took the form of yet another round of attacks on people involved with the government's anti-quackery committee.

To finish up, I will quote what a press release by a supposedly competent journalist said about a mailing list I set up at Yahoo! as a joke. The release was a wide-ranging attack on anyone and everyone who dared to criticise quackery in this country, but the following fragment caught my eye. It will give you an idea of the research capabilities of the alternative medicine world, their abilities to detect irony, and the sort of nonsense they will only too easily believe.

Bowditch also has a link to a restricted access discussion group that is only open to 'approved' members. The discussion group, QuackbustersOfTheIlluminati, states its purpose as being: "This is a meeting place for the anti-alternative-medicine committee of the Illuminati, where we can meet and consider our attack on health freedom within the broader agenda of world domination." It is not known what relationship Bowditch has with this group, why it is secretive or why it was formed.

I invited the journalist to join the secret society, but she has not accepted the invitation.

So, in summary, I can say that the state of quackery in Australia is far worse than it should be. That doesn't mean that things are hopeless. There are people and organisations working to bring sense to the situation. Resistance is not futile, and while the flag might be upside-down, it isn't white.

Note:

A complete pictorial record of SkeptoBear's travels in the USA can be found at:
www.users.on.net/skeptic/skeptic/nsw/web/index.htm

Medium Rare, but not Well Done

Garbled messages from 'beyond' are not much help.

Karen Stollznow, a postgraduate student in Linguistics at UNE and member of the NSW Committee, is an inveterate challenger of dubious claims

Penn & Teller[1] put it most succinctly when they observed, *'Anyone can talk to the dead. Getting an answer, that's the hard part'*. Yet, there are relics of the 19th Century spiritualism (or spiritism) movement who claim the ability to contact, see, hear, feel and speak with the deceased, those who are on the 'other side', in the 'after life', 'in the next life', have 'passed on', 'crossed over', 'gone beyond' or any other euphemism of your choice.

Spiritualism then ...

Catering to contemporary tastes, mediums have lost their entertaining, theatrical flamboyance of yore. Gone are the darkened parlour séances. Gone are the gimmicks and phenomena of automatic writing, trances, ouija boards, poltergeist activity, levitation, inexplicable smells, disembodied voices and floating musical instruments, rapping sounds, flickering candles, table-tilting, materialising objects (known as apports), ectoplasm and 'Silver Belle'-like materialisations of spirits.

It is clear that the accoutrements of spiritualism have been thoroughly debunked and established as nonsense. Can the same be said for mediumship itself? While some paraphernalia, a dimly lit room, candles, incense and tarot cards may create a suitably eerie ambience, the ostentatious trappings of spiritualism or 'physical mediumship' instantly give the game away. I admit to using a rudimentary ouija board during lunchtime when in primary school. When I wasn't deliberately moving the glass planchette I accused the other kids of doing so. Nowadays, the sound of a disembodied voice at a séance would immediately send the attendees in search of a tape player. Even the Fox sisters, the three children from New York who concocted spiritualism in 1848, admitted their hoax 40 years on. So why aren't people as skeptical of today's 'mental mediumship'? It is merely no-frills spiritualism.

Depending upon the routine they use, mediums are variously known as channellers, clairvoyants,

clairaudients, clairsentients, clairallients, spiritualists, sensitives and trance psychics. These mystics claim to have a direct link to the dead, pets included. There are several techniques of mediumship, some more spectacular than others. The astonishing art of 'materialisation mediumship' has died out, along with sales of green 'ectoplasm' in toy stores. Anecdotally, these performers would enter a meditative, trance-like state. Presently, a cloudy or misty substance, known as ectoplasm, would emanate from their body, materialising in the form of a spirit guide or even as the deceased. Various theories now dismiss ectoplasm as smoke, cheesecloth, cotton wool, chiffon or muslin, sometimes soaked in luminous paint, egg white or even coated in whipped cream and usually planted with the aid of an accomplice. Rather conveniently, mediums claimed that ectoplasm could not withstand light and at the end of each sitting they needed to 're-absorb' (read: conceal) the ectoplasm before any light could be let into the room. Fear prevented the curious from inspecting the ectoplasm as attendees were warned not to touch the ethereal substance, lest they come to grave harm.

Legends abound of miraculous mediums who could create phantasmagorical displays. They were reputedly capable of evoking the dead; the materialised spirit guide or loved one would shake hands with or embrace the stunned attendees. Shock and the darkened room must have held them in hopeful belief until physical contact revealed an abettor, dressed in ghostly attire. Today's mediums know that feats of necromancy are safest as anecdotes.

... and now

The modern-day, garden-variety medium professes the ability to communicate with the dead; to see, hear, talk with and sometimes feel them. These mediums employ cold, warm and hot reading techniques, mental rather than physical magic tricks. Cold reading relies on interaction with, and feedback from, a subject; warm reading employs psychology and generalisations; while hot reading is psychic insider trading, gathering information surreptitiously.

The famous "Spirit Belle" photographs of a spirit 'materialising'

Lastly, channellers or deep trance mediums claim to be a 'host'. Known as attachment, their body is temporarily possessed by the spirit of the deceased or controlled by a 'spirit guide' who facilitates communication between the deceased and the grieving. These mediums claim to be physically and emotionally drained as a result of the experience and oblivious as to what transpires during their readings. This is a rare form of mediumship, as few have the requisite acting skills.

Internationally, 'mental' medium John Edward is currently the most (in)famous of his ilk, despite his dreary, predictable, cold/warm/hot reading routine. Edward brags of his three-year waiting list for private readings (at $1000 a pop). We in Australia are to again be dis-graced with his presence for a tour in February/March of 2004. Ticket prices are a giveaway at $40 for the cheap seats through to the $270 'premium package' which includes a swag of merchandise he can't otherwise offload, books, CDs and an 'appreciation pin'. Remember, *'admission does not guarantee a reading'*. Nevertheless, Edward's fame has increasingly been on the wane. Can this be attributed to a growing skepticism or a fickle public? We can predict a grim future of ballroom dancing and obscurity for Edward unless he reinvents himself like Uri Geller, nowadays a New Age Tony Robbins. Alternately, he could again emulate James Van Praagh, by riding on the coat tails of the next generation's pop psychic sensation.

Closer to home

Mediumship is not merely the subject of tightly-edited television programmes and clichéd books from overseas, it is a prolific industry in Australia too. I don't need to read your palm to know there is a medium near you. Our more notorious mediums who have enjoyed public fame, television segments and radio shows, include Joy Atkinson, Cliff Dorian, Deb Webber, Margaret Dent, Marlene Stoten, June Cleeland, June Cox, Doug Osborne, Terence Hamilton-Morris and the mono-named with delusions of grandeur like Darka, Ronita, Tabitha, Tara and our 2000 Bent Spoon winner Jasmuheen and also those with plundered epithets such as 'The Amazing Valda'.

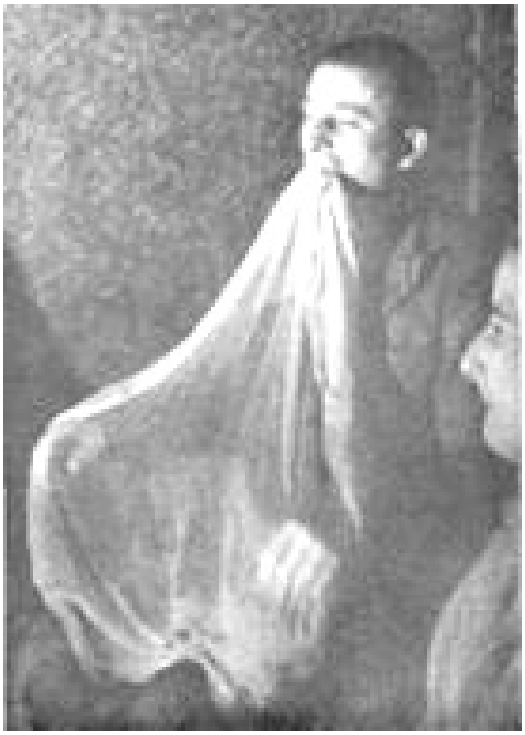
Enter Artemis

I had an appointment with Artemis (www.artemis.com.au) of Caloundra, on Queensland's Sunshine Coast. Artemis is one of several mediums claiming the title 'Australia's John Edward'. (Our Editor now boasts that he is 'Australia's Barry Williams', preferable to America's Barry Williams, better known as 'Greg Brady'). And what does Artemis do? In her own words, *'If I could point to the sky, and draw a circle that encompasses the universe, I may be able to come close to explaining what I do'*. Self-professed 'respected clairvoyant', the multi-talented Artemis is a medium, spirit guide artist, dream analyst, tarot reader, radio psychic and self-published author, *'throughout my life, the written word has been my second language'*. Artemis claims to be skilled in many areas of 'self awareness and healing', including Reiki, Rebirthing, Transcendental Meditation, Dream Interpretation, Voice Dialogue, Body Magick, Chironic Healing, Bowen Technique, Raindrop Technique, Vitaflex Technique, and Unconscious Patterning.

I selected Artemis, noting that she had a free appointment for the following day, as most mediums have a self-aggrandising four to six-week waiting list for their services. Furthermore, while other mediums only offer phone readings that suspiciously reek of scripting, Artemis agreed to a private sitting. Using her powers of clairvoyance, clairaudience, tarot and channelling her spirit guides, Artemis guaranteed that she could contact the deceased person of my choice or the session would be free. This was a relief, given the cost involved. Charging the extortionate rate of $35 per 15 minutes, Artemis hinted that the average client "needs 45-60 minutes", amounting to a hefty $105-$140! Although her website promises a free recording of the reading, I was charged a further $5 for the privilege.

The performance

Artemis was presented with a genuine question regarding the final words of Eleanor[2], a female family member of mine. A baffling, true story filled with mystery and intrigue, Eleanor's last words were *'look behind the wardrobe…'* This request was duly fulfilled but nothing at all could be found. The question I posed to the medium was, *'what was behind the wardrobe?'*



A medium exuding 'ectoplasm', or cheesecloth.

I was to be deeply disappointed by the complete lack of entertainment and fanfare during the session. Artemis was no 'performance artist'. There were no protection prayers, no calling on spirit guides, no rituals, incantations or props. Some mediums require a photograph of the deceased so they can successfully contact the 'right' person, others employ psychometry, 'reading' an object once used by the deceased, such as a piece of jewellery or an item of clothing. Artemis differed from every other medium I have ever witnessed by asking me straight up, who did I want to contact and why? There was no *'I'm getting the initial S'*, *'I'm feeling pains in the heart region'* or *'I see a smiling, elderly man to your left'*. There was no 'common name, common pain' approach. This removed the need for the preliminary guessing game and aided in her cold reading. Immediately, Artemis was privy to insider information, a name, age, the familial connection and the purpose for the contact. I only had 15 minutes and the clock was ticking!

Artemis asked that I meditate with her while she tried to contact Eleanor. Merely closing her eyes for less than thirty seconds she declared, *'I have her!'* I asked if she could 'see' Eleanor. *'Not very clearly. I just see an old woman'*. Such detail, from a supposed clairvoyant, was both impressive and reassuring. As if the deceased have their own radio frequency, Artemis announced:

I was wanting to make sure that I was tuning into Eleanor and I could feel her there. Then I got from her a couple of little symbols. One was, she showed me a scratchy record, an old record. When I saw that the message I got from her was that she liked music or dancing. Some association with sound.

A startling revelation or a common, unexceptional interest? Either way, this did not answer my question, *'what was behind the wardrobe?'* Perhaps Artemis was trying to establish that she had stumbled across the right spirit and not some demonic impostor! So far, I was unconvinced that Artemis had contacted Eleanor. Owning hundreds of pets during her lifetime, Eleanor was a cat fancier who successfully showed many different breeds but also collected stray cats and dogs. Animal welfare issues and her pets were major passions in her life. Surely a more distinguishing, convincing 'sign' would be a kitty rather than a record? Artemis continued:

The second thing that came through when I tuned in was something about her lower legs not being really

good. I'm not sure if that was when she was a child or a youth or an adult. Or it could have been when she was passing away, whether that started deteriorating. There was certainly something about the lower legs being gammy.

Artemis must have tuned into the wrong radio station. Although incorrect, this was a crafty, sweeping attempt that covers all of life's cycles, *'when she was a child or a youth or an adult'*. After all, most children graze their knees, many adults have leg injuries or problems and many elderly are bedridden. Despite the generalisation, this assessment was both inaccurate and irrelevant to the situation. At this point I think Artemis realised she had a po-faced client who wouldn't co-operate with her mediocre cold reading by offering telling feedback, expressions and emotions.

Finally, five precious minutes into the reading and after much prodding, Artemis 'tuned in' to what was behind the wardrobe.

My feeling each time I tuned in is that it was actually on the wardrobe. Attached to the wardrobe, against the wardrobe, stuck to it. It felt to me like it was either a key or a photo. Was it financial? Didn't really feel that way. Was it emotional? Something of emotional significance to you and I get really clearly, yes. So it's not the key to her wealth or something like that.

Plausible, cunning speculation or evidence that Artemis has confused her commonplace, predictable imagination for psychic ability? If someone posed to you the question *'what was behind the wardrobe?'* wouldn't you visualise similar possibilities? Something confidential. Something thin or small, that could be hidden in a confined space. Something of importance. Perhaps a letter, a document, a family heirloom, jewellery, money, a book or a photograph. Those unromantic or pragmatic readers may be imagining a power socket!

KS: *And was this item for anyone in particular?*

A: *I feel like the message is coming through to you. So it's something that you will appreciate having but the whole family would enjoy it. Maybe it's a photo of her when she was young.*

KS: *and this was for me and for no one else?*

A: *The message feels like it's coming through to you and that's today because we're working through the mediumship. It's almost like she's only talking to you. She's not talking to the rest of the family at the moment. It's like she's looking through this window and saying, 'you'll really appreciate this'.*

Wrong. Another wily presumption that I was the inquiring party, therefore I must be the person with the vested interest. I was not the person to whom the instruction, "look behind the wardrobe', was uttered or for whom it was intended. But what was the item?

A: *It feels like it ties into her history, who she's been. That's what makes me think if it's a key, maybe it's a key to maybe something that's got photos in it or it's a photo.*

Such circumlocution! Maybe it was a photo of a key? But why had the images suddenly become so vague and imprecise? If Artemis had truly contacted Eleanor and been 'shown' such distinct, detailed images as a scratched record and gammy legs then why not the exact item concealed behind the wardrobe? Instead, Artemis conveniently blamed the voiceless deceased for her own failings.

A: *I can only tell you what I see and hear or what the spirits tell me.*

Perhaps her spirit guides need spectacles and an ear trumpet. But why would a person hide a photograph?

K.S. *Is there some reason the photograph was secretly placed behind the wardrobe rather than in a frame or album? Why the covertness?*

A: *The immediate thing that comes through is that she didn't want people to know about it. It feels to me like it was her as a youngster. Something she'd done when she was younger and been photographed doing. The feeling I get is it relates to the music. A picture of herself doing dancing where she got dressed up in something that was a little more alluring.*

What exactly was Artemis implying here? One minute I am told the item is something for the whole family and the next it is something shocking and scandalous!

K.S. *But can we find this lost item?*

A: *All I get is the words, she hopes so. That's where she last remembers it being. She hopes it's there. She hopes that if you look you'll find it there. That was like her place of safekeeping.*

Obviously not so safe! It was disenchanting to discover that Artemis could not combine her medium/psychic abilities to locate a simple missing item! Moreover, Eleanor died in 2000 and the item was searched for. The request probably referred to some documents that were located elsewhere. The house has since been sold. Artemis seems to assume throughout that this was a recent death and neither her 'psychic' abilities nor her supposed conversation with Eleanor revealed this error.

Finally, Artemis had a few minutes to kill and went into a rambling account of irrelevant, nostalgic imagery. She spoke of a "memory" she envisioned, of a female member as a child, playing in a small garden. Artemis went into a groaningly lengthy description of the garden and facade of the house. When this family member listened to the recording of the reading, she disagreed with the description while noting the memory is one that most children would have, had they ever lived in a house!

Artemis had some parting words of wisdom to share.

There was something else important I was gonna say. Let me see what it was. (lengthy pause) Okay. No. Nothing.

After 15 minutes the connection to the other side was matter-of-factly terminated. Congratulating herself on the reading, Artemis murmured, *'for me that all felt pretty consistent so I'm happy with what I've picked up'*. But was her client satisfied? I admitted to her that much of the reading struck me as inaccurate or generalised and remarked that I needed to consult my family to verify the accuracy of the overall reading. Shrewdly, Artemis warned me that if no one could substantiate the reading then she had revealed secret information of which even my family were not aware. Checkmate!

There were moments where Artemis confused Eleanor's position in my family tree, despite the clear and honest information I relayed. I asked her why the reading was so vague and the communication fragmented. Yet again, the onus of blame lay with the deceased. *'I didn't getting full sentences from her. It's like a telephone with a crackle in it. Many deceased don't know how to send the words. They haven't mastered the knack of getting words through'*. Yet during her lifetime, Eleanor was an expressive, intelligent woman who is well remembered for her strong opinions and enthusiastic chatter. It is sad that in trying to eke final words from our loved ones, to give them a voice, we are taking away their voice.

Musings on mystics

It is said that there are two types of psychics, those who are wilfully deceitful, eyes open psychics and eyes shut psychics, those who have some intuitive ability and have unconsciously developed cold and warm reading skills. I would place Artemis in the latter category. Her technique mainly involved warm reading, with a lukewarm delivery. The reading was characterised by ambiguity, generalisations and contradiction and was replete with evasion, excuses, indecision and stalling. By directly asking for the essential information, Artemis could immediately draw assumptions about her subjects. While the television pop psychics employ cold reading techniques to glean names, often cheating with hot reading,

A seance we'd like to see.

Artemis claimed she could not *'receive names, only words, pictures and feelings'*. Without the benefits of studio editing, Artemis could not convincingly achieve this. Her final comment was a caveat undermining her entire profession, *'psychics must always put a question mark on how we visually see and hear things — because we don't know enough how accurate that is'*.

Beyond deception and self delusion, are there dangers to mediumship? Although spiritualism is perceived as a religion by some of its followers, conventional religious groups are strongly opposed to this occult practise. At www.wilmington.edu, Father Bamonte, a religious of the Servants of the Immaculate Heart of Mary, *'dedicates his pastoral ministry to helping people who have fallen prey to wizards or self-styled mediums'*.

While this article is concerned with ethical issues and the fraudulent nature of mediumship, Father Bamonte is a believer who is more troubled by the physical consequences of spiritualism, listing the following as the 'principal dangers of spiritualism':

Physical troubles of all kinds such as strong stomach pains, pains in the forehead and bones, vomiting, epileptic fits, pins and needles in the legs, sudden attacks of heat or cold, increasing sense of anxiety, depressions, constant nervous tics, the impossibility to take in food. I am referring only to physical troubles, but there are still many more: inability to sleep night or day, inability to study or work. To be agitated, to have nightmares, to be afraid of the dark, to have the sensation of being grabbed by the arms, or the sensation of someone sitting on our lap. One also feels invisible slaps and bites, as well as blows to the body.

While the occult is not intrinsically dangerous, should a suggestible person dabble in it there is indeed the risk of exploitation or psychological trauma, as with any cult-like activity.

No one can doubt the advantages of being able to contact the deceased nor can we criticise the motives of wanting to do so. Spiritualism and mediumship offer to their followers the hope of life after death, easing the fear of death itself, and providing simple answers to complex questions. Some dismiss mediumship as harmless 'entertainment' or defend

the practice as a process of closure, counselling and comfort for the bereaved. But do mediums console or con?

Altruism is the last refuge of these scoundrels. Their magnanimity is endless. They practice mediumship because they have a 'special gift' they must share with the world. They have a strong desire to use their talents to help other people. Each cliché supports the definition of 'charitable work'. Do mediums benefit people or themselves? Rarely is their work voluntary. Beyond those who dabble in tasseography during morning tea, many psychics perform readings for monetary gain and for a few, undeserved fame.

Psychics dedicate more time to trying to persuade us of their powers rather than imparting helpful information. Shouldn't we expect greater accuracy than an occasional, prompted 'hit'? Or would we be suspicious of an extremely precise, specific reading? It is hard to be objective when dealing with such an emotional issue. We want to believe. This is the Barnum Effect. Hope will pardon, rationalise and overlook many an error in a reading. Hope will also tempt people to validate or reinterpret an inaccurate reading in hindsight. This tendency is encouraged by psychics, as I was condescendingly told, "later on it will all make sense to you". Moreover, hope will allow an accidental 'hit' or lucky guess to be interpreted as real psychic ability.

My reading with Artemis was not a profound revelation of startling facts. During the fifteen minutes of rambling she touched upon so many varied and common topics that, statistically, she should have provided me with a plausible 'hit'. But she didn't. The most disturbing incident occurred after the reading. When a family member listened to the tape recording they were open-minded and earnestly hopeful that the reading would reveal proof of contact. The reading was fairly assessed but judged to be inaccurate and general. The whole experience left them dismayed, stirring such painful memories and sharp pangs of loss that I witnessed the raw grief and deep distress of a person still in mourning. To witness such a sight forces you to realise that there is nothing honest, positive or comforting about this exploitative, unconscionable practice. As other skeptical writers, Penn & Teller, James Randi, Michael Shermer and Joe Nickell have commented, we are bequeathed with genuine memories of our deceased loved ones that should be preserved and not soiled with false, force-fed 'memories'.

I emailed Artemis and explained that my family strongly refuted the accuracy of her reading. She responded, surprised and defensive of her powers with anecdotal evidence, *'by far the majority of the feedback I get is that I'm spot on with my readings and messages'.* Artemis predictably suggested my family reinterpret the reading. Could it have reflected another family member or even a friend? To compensate, Artemis offered me $40 credit towards another reading, a workshop or product and a complimentary CD for my troubles. The CD promises to teach me the skills of mediumship, because *'every one of us has the ability to contact the deceased'.* Stating that everyone has the ability is a convincing argument that no one has the ability. I know that I don't. And who would then need a 'medium'? Our loved ones would communicate directly with us rather than be summoned by a stranger.

Notes

1 Quote taken from Penn & Teller's television program, Bullshit! *Season 1, Episode 1 'Talking to the Dead'. This was probably adapted from the following Shakespeare quote:*

Glendower: *I can call spirits from the vasty deep.*

Hotspur: *Why, so can I, or so can any man; But will they come when you do call for them?*

King Henry IV, Part I, Act III, Scene I

2 The actual name has been changed for this article, although the medium was provided with exact details so an inaccurate reading could not be blamed on misinformation.

Canberra Skeptics Environment Weekend

Saturday 21 August
— at the CSIRO Discovery Centre, Black Mountain
1 - 6 pm: Forum on Global Warming - chaired by Professor John Chappell, ANU
7 - 11pm: Dinner plus Debate — topic "Global Warming is a Good Thing!"
Sunday 22 August
— from the village of Hall to Parliament House (17 km)
from 10.30 am - "Ride for the Planet"

Details and Registration
See website and next issue of *the Skeptic*

Amaz!ng in Vegas

James Randi's *The Amaz!ng Meeting 2* (Las Vegas, 15 to 18 January)

During a two week trip to the USA, I took part in a major skeptical event, The Amaz!ng Meeting 2 (TAM 2), organised by James Randi's Education Foundation (JREF), held in Las Vegas from 15 -18 January.

James "The Amazing" Randi is one of the leading figures in the Skeptical world. A highly successful magician, he's made it his life's work to unmask fakes and scam artists. The JREF supports Randi's web-site (www.randi.org), and his activities through the year. The web-site is well worth a visit, if only for his weekly commentary which covers all sorts of topics, and includes a lively web forum whose members have developed a strong sense of community, as well as attracting a few people with alternative views.

Randi is a pixieish 75 years young, with a bushy, snow-white beard and a fierce visage (when he wants to employ it). Loyal to his friends and fellow skeptics, and very charming in person, he suffers no fools, and is hell on those who try to mislead him, others or themselves; he reserves particular scorn for those with PhD after their names, as people believing themselves incapable of being mistaken.

TAM 2 attracted an audience of 400 people, mostly from the USA, but also from Canada, Europe and Latin America, and five from Australia. It featured over 20 speakers, two panel discussions, and a range of official and unofficial activities.

Thursday 15 January

I arrived in Las Vegas just after 1pm, with TAM 2 already under way. Randi and JREF's Andrew Harter were running a workshop, though the official opening wasn't until 5pm.

After the official opening by Randi, the programme began with Jamy Ian Swiss, billed as a "quick-of-hand". His performance consisted mainly of demonstrating magic skills, but as we admired his tricks he took time to discuss the difference between magic and religion. After one trick he commented, "If you thought this was real, you wouldn't be an audience, you'd be a congregation."

He was followed by Ian Rowland (guest at the Australian Skeptics Conference in Canberra last August), who gave essentially the same performance that he did on that occasion. It was no less impressive the second time around; in fact, seeing his skills again gave me a couple of clues as to what was happening. It occurred to me at the time how much sheer pleasure and wonder I got from watching these talents in use, and the challenge of trying to work out where and how I was being fooled.

Friday 16 January

Dr Michael Shermer, founder of The Skeptics Society, was the first speaker, discussing his new book, *The Science of Good and Evil*, about the origins of morality. His position is that morality evolved by natural selection. He listed two moral principles, reciprocity and the Golden Rule (do unto others…), which are almost universally embraced. He covered a range of topics in his talk: why we should be moral; the rise of religion; the existence of good and evil; and his concept of provisional morality as an alternative to either absolute or relative morality.

Dr Eugenie Scott of the National Center for Science Education spoke about the ongoing battle with creationists and "Intelligent Design" proponents in the USA, and the role of the NCSE in helping local groups combat efforts to emasculate the science curriculum. (Dr Scott gave talks in Australia a few years ago on the same topic.) The NCSE (www.ncseweb.org) provides advice for individuals and groups, and conducts research into creationist positions and articles.

She was followed by Hervey Peoples, author of the book *The Human Question*. She covered the beliefs held by Americans about evolution, based on a large number of interviews. It may seem depressing that only 10% of Americans believe that only evolution has shaped humanity's past, while 44% are creationists, with about 40% holding mixed or moderate views. But on the bright side, she emphasised that the "mixed/moderate" position embraced a large range of views, and that even the term "creationist" was a relatively broad term.

After lunch, Australia's own Ratbag, Peter Bowditch, described the problems caused by the alternate medicine industry in Australia, and in particular by the Complementary Healthcare Council of Australia (see his report elsewhere in this issue). He also described his journey to TAM 2, which included detours to various quack clinics in southern California and northern Mexico, and his failure to meet the various people who have threatened him over the Internet.

Banachek the mentalist returned us to the world of magic, with some impressive tricks. He then described how he took part in a series of tests of mental powers undertaken by

Peter Phillips in 1980-81. Phillips was a scientist, but something of a true believer in mental powers, and unaware that he was constantly being fooled by the young magician. He was all the more naive to ignore advice given by Randi on how he might be tricked. Worst of all, Phillips never realised the significance of the fact that each letter Randi wrote was specific to the test Phillips had just conducted, even though Randi wasn't part of Phillips's test team: Banachek contacted Randi after each test. He concluded his talk by warning of the false dichotomy — the belief that once you know one explanation for a phenomenon you know them all.

Then came one of the highlights of TAM 2: Penn and Teller. These two spectacular performers thrilled us with some of their tricks, most of them different from what they were to perform later. Throughout, the larger-than-life Penn kept up an aggressive patter, while Teller remained silent. The first trick was an old favourite — restoring to wholeness a length of cloth which appeared to have been cut in two. Other tricks included Teller eating pins, and Penn eating fire. Later on, they both spoke, with Teller describing magic as a celebration of the art of lying. Penn built on that, saying that lying is the one evil that can be celebrated when surrounded by the proscenium arch. What's wrong is when it leaks into the real world.

Following a short break, Randi, Penn, Teller, Shermer, Peoples, Scott, Dr Bob Park, Dr Steve Barrett and Dr Phil Plait gathered for a panel discussion of "Bringing Skepticism to the Masses", moderated by the JREF's Hal Bidlack. Some questions and comments:

What is the skeptical movement doing to bring its message to minorities? Skepticism appears to be only a white male idea.

Is there a danger of harming skepticism with bad phone calls to radio shows? Not really — just mention the JREF million dollars and the web-sites.

Magicians can have a major influence on the public, perhaps more than skeptics and humanists.

Critical thinking is applicable everywhere — you can't exclude areas of personal preference.

Ridicule is a weapon which can be used in discussions. Otherwise, speak quietly and slowly, and let the other person rave. Then, select a couple of points and pick them apart.

Phil Plait, the Bad Astronomer, with friend

The end of the panel marked the end of formal proceedings for the day. After dinner (some of us ate at an Outback Steakhouse) we caught a shuttle bus to the Rio casino, to catch the Penn and Teller show. The show is brilliant, and I can highly recommend it to anyone who happens to be in Las Vegas. I'm so pleased that they play to large audiences every night, year after year, because the show is much more than just magic: Penn's rapid-fire spiel also contained many references to critical thinking, science and atheism.

Saturday 17 January

The first speaker was Dr Bob Park, who discussed a US Supreme Court decision of 1993 that courts were to determine scientific expertise, rather than juries. Park described seven warning signs of voodoo science, written as advice for judges.

1) The discovery is pitched to the media rather than other scientists;

2) A 'Powerful Establishment' is said to be suppressing the discovery;

3) An effect is always at the limit of detection;

4) Evidence for a discovery is anecdotal;

5) A belief is said to be credible because it has endured for centuries;

6) An important discovery is made in isolation;

7) New laws of nature must be proposed to explain an observation.

On the way, Bob told a couple of stories, starting with the classic, "There's no claim so preposterous that a PhD can't be found to vouch for it." He also mentioned the Center for Alternative Medicine, created by the US Congress. Thanks to a politically canny director, it now receives hundreds of millions of dollars in government funding, and it has been conducting randomised double blind trials of a number of alternate medicines. So far, all of the results coming in have proven negative.

Dr Steve Barrett of Quackwatch, followed with a warning that consumers are vulnerable to the claims of alternate medicine quacks because they're not suspicious enough, and don't have the background to judge the accuracy of the information they are given. Some are antagonistic to science, distrustful of it, or even paranoid. There are also consumers who are terrified or desperate. Suppliers of alternative medicines also fall into a number of categories. Some are moral believers. Others are amoral business people, in that they don't care whether their products are useful, as long as they sell. Finally, there are the immoral crooks, who know they're selling rubbish.

The last speaker before lunch was the highly amusing Dr Phil Plait,

the Bad Astronomer (Barry Williams reviewed his book *Bad Astronomy* in the Winter 2002 edition of *the Skeptic*). He covered two issues which caused something of a stir during 2003, the Harmonic Convergence and NASA's decision to crash the Galileo spacecraft into Jupiter.

The Harmonic Convergence was an event which actually occurred (well, sort of) last year. Six celestial objects happened to be placed at roughly 60 degree intervals around the Earth, an event of some importance in New Age circles. However, the BA found three major problems:

1) the six objects were at vastly different distances from the Earth;

2) they were scattered at varying angles above and below the Ecliptic; and

3) they varied vastly in size (in fact, one of them was the Sun, while another was a 200 km diameter comet remnant).

You may remember that Galileo was deliberately crashed into Jupiter last year to prevent it from inadvertently contaminating Jupiter's moons. However, there were some in the woo-woo community who believed that NASA's real plan was to use Galileo's Radio-Thermal Generators (its power source) to ignite the hydrogen in Jupiter's atmosphere and turn it into a new star. The BA pointed out no less than six factors which each made this impossible.

The first speaker after lunch was the delightful Julia Sweeney, late of the comedy TV show, *Saturday Night Live*. Sweeney's talk was a pared-down version of her new monologue, "Letting Go of God", a tale both hilarious and melancholy of her journey from Catholicism to atheism, and the stopping-off points between. She emphasised the importance of accepting what is true, whether you like it or not, and she described how removing God from your world view changes your outlook on events: things become your responsibility — you can't leave it to God.

The Oz contingent with Julia Sweeney (right)

Next, actor Dean Cameron and his friend Victor Isaac performed "Dino and Victor's Nigerian Spam Scam Scam". Dino and Victor read a month's worth of emails exchanged between Cameron and various Nigerians who have been attempting to scam money from him. Cameron played himself, while Isaac played the parts of the Nigerians. They had the audience in stitches as Cameron made hilarious cultural references which they completely missed, deliberately misunderstood some statements they made, introduced obscure codes and irrelevant side issues, and flirted outrageously with one of the Nigerians.

The last speaker of the day was Lance Burton, a magician, who, like Penn and Teller, has his own permanent show in Las Vegas. Burton's act was short. He started with a demonstration of *faux* magic, turning it into real magic. He then demonstrated the skill of escaping from a straitjacket, a homage to Harry Houdini (and James Randi).

The afternoon featured a second panel discussion, starring Randi, Sweeney, Penn, Swiss, Rowland, Dino, and Harter. Again moderated by Hal Bidlack, the topic was Skepticism and the Entertainment Industry. Not surprisingly, many questions were directed at Julia Sweeney.

What do you tell kids about atheism and death?

Explain it to them straight.

Should there be a movie to exalt science and critical thinking?

No, it doesn't work that way. Instead, celebrate the great movies, like Apollo 13 *and* South Park.

What can we do to help deal with the flakes and frauds on talk shows?

Don't watch it. Watch the good stuff and write to the stations to thank them when they screen it.

What did the panellists think of the term "Bright"?

Penn and Randi both like it.

Rowland described some unhappiness within the magical industry about his book on cold reading, believing he was revealing trade secrets.

What harm do people like John Edward do?

They're lying, cheating scum. You might have liked it at the time, but what of integrity? Nor is he a grief counsellor, as his method is to make people hold on to the pain of bereavement, rather than to move on. The term "epistemological hedonism" was used: if it feels good, do it.

Doesn't this apply to John Edward?

Penn's response was, "It also applies to heroin."

What of Penn and Teller's TV series Bullshit*?*

It'll be out on DVD in March. (The show was reviewed by Richard Saunders in the Skeptic *23:1.)*

Will they be covering Scientology?

Penn said that even he and Teller weren't powerful enough to take on the scientologists, though he suspected they were a lot less influential than people gave them credit for.

Another of the informal activities followed — the international chocolate challenge. I flew the Australian flag by bringing along some Tim Tams, considering their name appropriate for TAM 2!

Sunday 18 January

The day started with the presentation of papers, introduced by JREF's Dr Jeff Corey. The papers were brief talks prepared by JREF forum members on topics of personal interest.

Lt Col Matt Morgan presented a talk on the misuse of the Second Law of Thermodynamics by creationists to "prove" that evolution is impossible. They claim that increased order contradicts the Law, but ignore the fact that the law applies only to closed systems. Thanks to the Sun, the Earth is anything but a closed system.

Dr Ray Hall discussed how science works. He started with Carl Sagan's Baloney Detection Kit, Occam's Razor, Verification and Falsification. The proponent of a claim must be able to answer the question: "What evidence could I show you that could change your mind?" Finally, Dr Hall compared a case law description of science (that which is testable, falsifiable, provisional, guided by natural law, and which is explained by reference to these laws) with the membership statements of creationist groups (which are articles of faith).

The last paper was presented by Dr Dave Ewalt, about skeptics and the media. When writing letters to the Editor, there are things to keep in mind to improve the chances of being published: be polite; be constructive (provide links to useful sites); suggest good sources of information; keep it short; get others to write letters as well (but don't use a boilerplate); write to the editor and the reporter (so the boss knows they've been caught out); and don't always be negative (let the media know when they get it right).

The last speaker of the conference was Dr Ray Beiersdorfer, a geologist and expert on lunar rocks, who spoke about that staple of New Age nonsense, the crystal. He defined crystals as substances in which the atoms are arranged in a regular, repeating, orderly pattern, naturally occurring, inorganic, solid, and with characteristic physical properties. Drawing from his research on the Internet, Dr Beiersdorfer catalogued the healing claims for crystals, the basis for the claims and people's beliefs. He then described some of the unsuccessful tests of the claims of crystal powers he had conducted.

The last part of TAM 2 was a couple of short films. The first was of the first card trick performed in space. Randi (on Earth) and NASA astronaut Ed Lu (on the International Space Station) jointly performed the trick, with the assistance of NASA and local media. Lu, a cheerful man with a impish grin, played with a deck of cards as it floated in front of him, listening to Randi's instructions, and clearly relished the event.

The second film was a series of short clips of James van Praagh, one of those people who's made his name from "talking to the dead". The film showed how he constantly recycles his terms from show to show. Each segment was preceded by words: breathing; toys; jewellery; these seemed to be the only things the dead mentioned to van Praagh, and the victims did their best to fit their circumstances to his statements, while he quickly revised his comments to fit their replies.

After a short break, those of us remaining gathered for the formal closing of TAM 2. Randi again spoke. He reminded us that discussion and evidence are different things, and reiterated that, "If you make the claim, supply the evidence."

So what did I learn?

TAM 2 was a wonderful experience, and so much more than just listening to the speakers. A large part of the experience was interacting with the people from around the world who shared the skeptical world view, people who enjoyed each other's company, people with a wide range of careers and talents, thoughtful people who were always willing to learn something new.

Randi gives no signs of slowing down, and his status within the magic and skeptical communities was vital in allowing him to assemble such a wonderful list of speakers. His staff showed the importance of people working behind the scenes and out in front to make things work. The conference was quite expensive, with registration costing about US$300, and accommodation expensive. We do a good job to keep our own registration fees well below that.

However, the speakers were all of a high standard, from the fields of science, magic and the entertainment industry. I think we could do well to include some speakers from the third category at future Skeptic conferences, and the issue has been informally discussed.

TAM 2 was strongly atheist, and a number of panel questions related to this. Both Randi and Penn are aggressively atheist, and a number of their comments left some people uncomfortable. But there were others there I spoke to who greatly appreciated Randi and Penn vocalising their own thoughts.

The conference generally ran smoothly, although there were a few hiccups caused by the venue, and a few speakers ran over time. The panel discussions were a great success, allowing attendees to pitch questions directly to the speakers (there had been no time for questions of individual speakers). But in general, the conference was organised on similar lines to Skeptic conferences here in Australia.

Comments (and attached photos) from other people who attended TAM 2 can be found at www.randi.org — go to the JREF forum and select the topic "The Amaz!ng Meet!ng and other Skeptical Events".

In summary, it was so good I'd love to be able to go to future TAMs.

Peter Barrett
is Vice President of Canberra Skeptics.

Creationism and Feminism

Women should not look for comfort among the fundamentalists

Not content with pointing out alleged flaws in evolutionary theory, creationists often apply their pseudo-scientific approach to many other fields of human knowledge and endeavour. Some of these, like archaeology and astronomy, are outside my competence, but I would like to argue here that creationists offer a quite distinctive theory of male-female relationships. This theory is based on the Christian fundamentalist stipulation that women are to be 'submissive' to male authority figures such as fathers and husbands, but goes considerably further.

Creationist organisations such as Answers in Genesis (AiG) and Creation Research publish and promote material on a wide range of topics other than creationism itself. The fundamentalist world-view which underpins their pseudo-scientific ideas is just that: a particular way of looking at the whole world — indeed, the entire cosmos — in all its aspects.

There is thus a creationist view (or, sometimes, views) on just about anything you can imagine. Needless to say, bodies like AiG are extremely hostile to all manifestations of the feminist movement — and I mean every single one! AiG emphasises male 'headship' over women and mutters darkly about opposition to its cause by *'known feminist agitators'*. (*Prayer News*, Oct 1986, 2)

However, John Mackay, Director of the rival Creation Research group, is in another class altogether. Writing about *'the declared feminist desire to be able to clone humans, so* [women] *could dispense with men'*, Mackay offers us this insight into the science of cloning:

> *Can you imagine the results of feminist-controlled cloning? A planet full of cloned female offspring whose similar physical characteristics would react identically to the same conditions, ie, get sick at the same time, have the same monthly syndrome, wear the same face, like the same colours and fashions. Such feminist clones would bore themselves to death at the same predictable age. (*Creation News*, Aug 1997, 5)*

I note in passing that Mackay is a former secondary school science teacher.

Pastor Vernon S. Grieger

If you're interested in learning more about the proper place of women in the world, Mackay will sell you a little book by Lutheran Pastor Vernon S. Grieger of Queensland. The book is called *Earthly Images of the Heavenly Bride: Women and the Church*, and I assume it sold reasonably well as I am quoting here from the revised edition. Grieger establishes both his

Brian Baxter is a Melbourne based writer whose image continues to resist capture by photographic technology

general position and his scientific credentials at the outset:

All modern scientific research into the sexual differences between men and women lead[s] *to one conclusion: the overwhelming majority of* [these differences] *have their origin in biology and are determined before birth. So conclusive and so unanimous is the scientific evidence for this truth that feminist philosophy has now been relegated to 'flat earth' status. It can appeal only to those totally ignorant of the facts, trendy politicians, image-conscious popular church leaders, or hidebound ideologists. (4-5)*

Grieger goes on to explain that his entire book will be based upon Scripture:

[I]*t will be taken for granted that the Creation account of Genesis is the factual and historical truth of God — Those who accept the evolutionary origin of man from animals or who treat the account of the creation of man and woman as myth will no doubt regard what follows as nonsense. (7)*

Male dominion over women

Pastor Grieger regards male dominion over females as the basis of his argument about 'women's nature':

It seems to be most vital ... for women to see themselves as being created from man, as the Scriptures assert, for it is in her dependence upon man and not her independence from him that the true glory and dignity of woman lies. Only in this dependent relationship does she attain her true personhood, contrary to the assertions of humanist philosophy. (10-11)

Having spent some time asserting that 'women are different in almost every way from men' (16) and that the 'natures' of the sexes are 'opposite' (17), Grieger then embarks on an excursus based on the work of the late creationist Dr A.E. Wilder-Smith, a mainstay of AiG's earlier incarnation, the Creation Science Foundation:

[T]he problem is: how could a female (XX) being — Eve —be produced from Adam's male (XY) rib cells by means of vegetative reproduction (ie, by cloning) without requiring a new creation? Here is a possible solution to the problem. As Adam did, every human male possesses in his somatic cells the chromosomes XY; hence if the Y chromosome were destroyed in an original rib cell — the X chromosome would double itself —This new XX cell would develop into a woman (not a man), who would in all other aspects be just as perfect (or imperfect) as Adam himself — We are no longer entitled to smile at the story of Adam's rib. (Wilder-Smith Basis for a New Biology, *as quoted in Grieger, 22)*

Having thus enlightened us on technical matters, Grieger begins to develop his rationale for the eternal subjection of women to men. This is as it should be, as: *"Woman did lead in the Fall and this resulted in a special curse from God"*. (29) Apparently, in the pre-Fall state of innocence:

women would have been able to bear children with less pain or with a pleasurable pain. The Fall spoiled this so that now she can bear children only with pain and suffering. (33)

Moving right along to the *New Testament*, Grieger introduces the key term which fundamentalists regard as governing female attitudes towards the male, namely, 'submission'. Women are:

...to have an obvious feminine reserve and submissive spirit which, according to Paul, shrinks even from asking questions publicly. (49)

Men, on the other hand, should never appear passive, as a wife:

...is enhanced, honoured and glorified by [her husband's] *caring strength and responsible leadership. It is only in such a relationship that she can be truly feminine with all her charms as she was designed, and find proper fulfilment as a woman. (52)*

If her husband is a real man, he will respond by:

... dressing her in neat, attractive clothes — Unfortunately many husbands, lacking this virile, masculine love of Christ, think that this is none of their business and leave it entirely to their wife. (53)

Feminism

The modern fly-in-the-ointment is, of course, the Women's Liberation Movement:

a complete tragedy, a total fraudulent deception. It tries to liberate from the enlightened spirit of the Christian faith into the darkness and slavery of the fallen ways of the sinful flesh." (Pastor Melvin J. Grieger The Paradoxical Nature of Woman, *as quoted in V.S. Grieger, 60)*

And how may we recognise these fallen ones?

It is no mere coincidence that such battling and restless females are usually ugly and bitter looking individuals, at least in the experience of the present writer. Neither jewellery nor expensive clothes, nor the other extreme of studied dowdiness can cover up the turbulent, disgruntled nature of their frustrated and sick souls. (61)

Grieger continues to develop these themes throughout the remainder of his book, regularly harking back to his point of departure, God's will for the sexes at the Creation. Some of his views are peculiarly repugnant eg:

There also seems to be evidence for the belief that rapists and incestuous fathers are to some extent a reaction against domineering women and overbearing mothers in early youth. If this is so then there could well be a vicious circle of degrading reaction: effeminate and incestuous fathers producing feminist and lesbian daughters, who in turn produce sexually irresponsible and incestuous sons. (99)

He also propounds the bizarre view that all humans are female in relation to Christ — *'What a sublime privilege to be chosen by the heavenly Bridegroom — to be His own Bride, adorned in the glorious bridal dress and jewels of His perfect righteousness'* (102) - and that in some mysterious fashion this renders women pastors guilty of *'spiritual lesbianism' — 'something utterly abhorrent*

to the Lord'! (98) He concludes the book with this exhortation:

> *We must learn to sing again the praises of that most glorious womanly virtue of contentment in and dedication to her task of making her home a haven of peace and joy for her husband and family* . (103)

Above Rubies

While it is tempting to dismiss Grieger's work as that of an uninfluential religious crank, it has been enthusiastically promoted by other Religious Right organisations, including the anti-feminist *Above Rubies* magazine. (March 1991, 16) While this publication is not outspokenly creationist, it has cooperated with groups like the Creation Science Foundation in the past (CSF *Prayer News*, Aug. 1990, 2) and the very fact that it is happy to recommend Grieger's book, plus its pervasive biblical literalism, indicate a strong identification with the creationist cause.

Above Rubies (*AR*) was founded in New Zealand in 1977 by Nancy Campbell, a pastor's wife. She moved base to Australia in 1982 and then to the US in 1991. The magazine now has a print run of about 130,000 and boasts readers in over 90 countries. (*AR*, Sept. 2002, 2) Perhaps it is worth expanding a little on the nature of Campbell's generally implicit commitment to a creationist world-view. Like other ultra-conservative, literalist Christians, she cannot escape entanglement with the creationist outlook despite the fact that her main focus lies elsewhere. Here are a couple of snippets from a recent op-ed piece of hers:

> *God is the originator of life — Adam called his wife Eve which means 'the life-giving one'. Eve was the prototype of all women to come. Our primary purpose and greatest privilege as married women is to give life. Oh I know there are many women who will resist this statement, but in doing so they deny whom God created them to be. (AR, Sept. 2002, 8)*

References to the behaviour of a literal Adam and Eve festoon the pages of this magazine. Special creation is simply a 'given', for these people. *AR* hammers the 'submission of women' theme into the ground, constantly reiterating God's displeasure with any other attitude. Nancy Campbell again:

> *Submission is a kingdom* [of God] *principle. The word 'submit' does not belong in Satan's kingdom —The key word in Satan's kingdom is 'independence'. It was the spirit of independence and — 'I'll have it my way' that caused Satan to be cast out of heaven, and he continues to corrupt the world with this same spirit today. It may feel good at the time but independence always brings destruction. This is why we now have such an epidemic of divorce. (AR*, Feb. 2000, 13)

So are women supposed to submit to abusive fathers and husbands? An anonymous article entitled "Don't Give Up Hope!" seems to answer this question in the affirmative:

> [After some years of marriage] *my husband became violent. He had always emotionally abused and threatened me, but only a couple of times had he physically hurt me. Until one night! I didn't leave him but wanted to more than ever — As my pastor prayed for me, it suddenly dawned on me that I had to go through this suffering for my husband's sake, for his salvation — Previously I had prayed about forgiveness, but I hadn't really forgiven deep down, until this day. This same day my husband phoned my pastor and I realised that my unforgiveness [sic] had held him in bondage.* (*AR*, Feb. 1998, 6)

Sometimes, the magazine's articles on the topic of submission border on the absurd. Val Stares, the *AR* Director for Australia, describes her desperate efforts to offer her husband total submission, illustrating her story with drawings of a woman standing under a broom inscribed with the words "My husband's authority". First, she depicts herself bending to fit under the broom, and then kneeling, but apparently the Creator God isn't satisfied. Only when Val is lying flat on the floor beneath the broom has she fulfilled the requirement of true submission:

> *Yes, I had to lay down my life! To get my marriage back into its rightful order, I took this position. I placed myself there. No one made me. It took sacrifice and I had to lay down all my own rights. But I desired to be where God wanted me to be —One word of warning —submission is a daily practice, not a one-time act. I have to daily check my attitude and the humility of my heart. Is my life daily laid down for my best friend, my husband, Bill.* (*AR*, Feb. 1997, 7)

For what it's worth, Bill himself seems quite a reasonable sort of bloke. All of Val's angst stemmed from his casual reply to some request of hers: *"Oh, please yourself. You usually do."* What Dr Freud would make of all this, I shudder to think.

Conclusion

It comes as no surprise to learn that groups and individuals espousing creationism are also anti-feminist, but the depth of feeling apparent in the writings of Mackay, Grieger and Campbell is truly startling. There is something totalitarian about the incessant demands for female submission contained in the works of these authors, let alone some of their other prescriptions (and proscriptions):

> *Just because you are married does not give you licence to do kinky things — Don't bring death to your bed. Most contraceptives either kill newly formed life, or kill the sperm that holds the potential of future life. Keep your bed holy.* (Nancy Campbell, *AR*, Feb. 2000, 14)

Politicians keep asking what they're teaching children in the public schools. I'd like to know what they're teaching them in the fundamentalist schools.

Continued p 48...

Snacking is Bad For You

Make yourself a sandwich before reading this.

Glenn Cardwell is a sports dietitian and nutritionist and a regular Skeptic *columnist, writing on Food Myths.*

Popular wisdom would have you believe that snacking through the day is bad for your health. You may even have grown up being told not to snack because it will 'ruin your appetite' or 'make you fat'. As usual, nutrition is more about what gets repeated rather than what is researched. Following is some of the science on snacking.

What is a snack ?

That's the problem. It is difficult to define a snack. One sandwich is a snack for a labourer, but might be lunch for an office worker. We shall assume snacking is the regular consumption of food 4-8 times during the day. Sometimes a snack will replace a meal, sometimes it will be in addition to regular meals.

Is snacking fattening?

As a general rule, no. From a research point of view, there is no evidence that the act of snacking will make you fat. There is little difference in total kilojoule intake when eating six times a day and when eating only two meals a day. That might surprise those who skip a meal in an attempt to lose weight, for many people will swear that they eat more during the day when they eat breakfast.

The problem we always face with food and eating is what others have referred to as 'calorie amnesia', that is, humans almost always under-report what they eat, usually by 10-20%. Overweight people under-report by up to 80%. So it becomes difficult to rely on subjective responses to questions about food intake and snacking behaviour, especially in those who consider snacking inherently 'bad'. Hence the reason people are placed in metabolic wards with calorimetry chambers for an accurate determination of energy consumed and expended.

This also presents a problem as human behaviour changes when one is observed (imagine living in a 2m x 2m x 2m cubicle with bed, TV, fridge, toilet, basin and exercise bike while someone logged everything you ate — hardly a normal environment). This aside, even overweight people seem to eat the same amount of kilojoules whether eaten in two meals or six snacks.

Not everyone agrees that snacking has a minimal effect on obesity. A recent French study (Marmonier *et al* 2002) suggested

that snacks were generally not compensated for in the following meal, meaning they were additional kilojoules eaten and hence could contribute to obesity. The study was done in young lean men and only measured the effect of a snack on the next meal. This study couldn't refute the possibility that compensation for the snack may occur later in the following 24-48 hours.

It makes common sense to judge that the type and amount of food you choose to snack upon will probably have a far greater influence on body fat than whether you snack or not.

Is snacking a metabolism booster?

When you eat, your metabolic rate rises as the digestive process burns kilojoules (known as the 'thermic effect of food', or TEF). This has led the pop-nutritionists to claim that snacking is a metabolism booster, therefore ideal for weight control. What they can't understand is some basic maths — if you, say, eat 1000 kJ, which induces your metabolism to rise and burn an extra 200 kJ, how does that help weight loss as you are still 800 kJ in the red? If you don't burn that 800 kJ during the day, it still ends up on your bum.

Anyway, there is some evidence that four meals v one meal a day creates a higher metabolic rate, probably due the extra time spent on digestion (TEF). So, all things being equal, snacking could help in weight control. But, be warned, there is also research showing no difference on metabolic rate between snackers and gorgers.

Will snacking make you thinner?

It may, but this will depend on what you snack on; not whether you snack or not. The three meals a day folk are often more overweight than snackers, but that is because overweight people cut out snacks in an effort to lose weight. If you want to keep snacking and control your weight, then choose lower fat snacks. Clearly fruit, low-fat yogurt, and salad sandwiches are a smarter choice than lamingtons and sausage rolls.

Is snacking good for health ?

Even as early as 1963, there was evidence that eating 10 snacks, rather than three meals, resulted in lower blood cholesterol levels. All subsequent research on healthy people has confirmed that snacking has either a neutral or a lowering effect on blood cholesterol (although this effect hasn't been seen in people with high blood cholesterol; if your blood cholesterol is high you will have to rely on more conventional dietary methods such as reduced saturated fat and weight loss).

How can snacking lower blood cholesterol?

One theory is that snacks mean a smaller rise in blood glucose compared to bigger meals, therefore less insulin in the blood. As insulin stimulates the production of hydroxymethylglutaryl-CoA (HMGCoA) reductase, one of the rate-limiting enzymes in cholesterol synthesis by the liver, less insulin may mean less cholesterol being made. (Note: this is the same enzyme targeted by statin drugs that lower blood cholesterol).

My tip

It is estimated that half of all adults snack (or 'graze') through the day. Snacking has become a normal activity. It's not whether you snack or not, it is about what you eat when you snack. Choose sensible snacks, and eat only when you are hungry, and good health will accompany you.

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... Feminism from p 46

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Creationist Weds Three Sisters

Evidence that creationists don't know which bed they are in.

Paul Blake is a geologist from Queensland with a particular interest in the rise of pseudoscience afflicting his profession.

Creationist Dr Tasman Walker of Answers in Genesis has tried to wed the geological unit that forms the Three Sisters in the Blue Mountains of New South Wales to his religious beliefs that the geology of the Earth is the result of Noah's Flood[1]. The article by Dr Walker can also be found on the *Answers in Genesis* website at http://www.answersingenesis.org/creation/v25/i2/sisters.asp. This rebuttal can also be found on John Stear's *No Answers in Genesis* website at http://home.austarnet.com.au/stear/walker_three_sisters_blake.htm.

The Three Sisters are made of sandstone that is part of the rock unit known as the Hawkesbury Sandstone, which occurs in the Sydney basin.

Be impressed by big things.

After an introduction in which Dr Walker discusses the National Park and scenery around the Three Sisters, his first statements concern the size of the Sydney Basin and some of its equivalents. He says (with figure references removed):

> *But the strata extend much further than we can see from the lookout. From Katoomba they reach 160 km (100 miles) south, 160 km north, and 160 km to the east—an immense rectangular deposit of sediment. Geologists call it the Sydney Basin, the resting place for massive volumes of sediment eroded from the Lachlan Fold Belt to the west, and the New England Fold Belt to the east. Many geologists consider the Sydney Basin is the southern end of a 250-km (160-mile) wide system extending 2,000 km (1,200 miles) north. The immense size of the deposit is evidence for catastrophe…*

Here, Dr Walker is trying to impress his audience with large numbers. It seems that he has not bothered to actually do any research into modern environments that geologists would consider similar to that which produced the Hawkesbury Sandstone. If he had he would have discovered that stream dominated fans can deposit sediment over areas that can be hundreds of kilometres in radius. The largest, well-studied stream dominated fan is that of the Kosi River which emerges from the Himalayan foothills to build a fan into the Ganges River valley. This fan is about 125 km wide and 125 km long[2]. Clearly, you do not need to invoke some magically created worldwide flood to explain sediment dispersal over large areas.

Since multiple rivers can enter a single sedimentary basin and each

can produce a fan, there is also no problem explaining the 2000 km extent mentioned by Dr Walker.

Also Dr Walker, like all creationists, never seems to be aware of inconsistencies within his own writings. Above he believes that an area 250 x 2000 km is too large to be explained by modern sedimentological environments, but in the past has indicated that he believes that the sediments of the Karumba Basin, which covers an area of about 1200 x 1000 km, is post-Flood[3] and therefore must have been formed by modern sedimentological processes.

Going with the Flow

Dr Walker then continues his assault on science by trying to use crossbedding to convince the gullible that only Noah's Flood could have the energy necessary to move the sediment that makes up the Hawkesbury Sandstone.

Crossbedding is formed when dunes (sandwaves) migrate over an area. Sedimentary material is carried along the bottom of the river and when it reaches the crest of the dune the material is deposited on the front slope of the dune to form a thin layer that is at a distinct angle to the horizontal (figure 1). The cross bedding dips in the direction of the flow of the current.

In his article Dr Walker writes (with figure references modified):

From the size of the cross beds, geologist Dr Patrick Conaghan, Senior Lecturer at the School of Earth Sciences at Macquarie University, determined the conditions under which the sand was deposited. In 1994 he described a wall of water up to 20 m (65 feet) high and 250 km (150 miles) wide coming down from the north at enormous speed. This catastrophic interpretation is consistent with what we would expect during the Biblical Flood.

References 1. Woodford, J., "Rock doctor catches up with our prehistoric surf", The Sydney Morning Herald, *30 April, 1994, p. 2.*

2. For more detail, see: Conaghan, P.J., "The Hawkesbury Sandstone: gross characteristics and depositional environment", Bulletin, Geological Survey of New South Wales *26:188–253, 1980.*

Figure 1: This photo is of a steeply dipping bed of sandstone. The photo has been rotated to bring it back to almost horizontal. When this sandstone was originally deposited the bedding would have been horizontal. The cross bedding can be clearly seen at an angle to the bedding planes. Given the dips on the cross bedding, the water that deposited this rock would have flown from the left side of the picture to the right.

Of the two references that Dr Walker gives for the above quote I chose to investigate the article from the *Bulletin of the Geological Survey of New South Wales* since this was the only peer reviewed source of scientific information for the claim. However, instead of finding "more detail" about this amazing "wall of water" I found none.

Dr Conaghan interprets the Hawkesbury Sandstone to have been deposited in a fluvial (river) environment. In the report we find passages like these below:

Directions of foreset inclination for more than 5,000 crossbed sets throughout the entire area show a unimodal pattern… Moreover, the conspicuous channel-like structures of the massive sandstone lithosome are generally aligned in this same direction… These characteristics, together with the high ratio of sandstone to mudstone, are those considered diagnostic of the sediments of low-sinuosity fluvial environments.

Dimensions of the larger sets (of cross beds) require generative sandwaves from 1 m to more than 5 m high, and in some instances, more than 100 m wide. Sandwaves of these dimensions are recorded from rivers, though the larger are known only from soundings.

Dr Conaghan does suggest flooding for some of the bed forms of the Hawkesbury Sandstone, but shows that the same kinds of sedimentary deposits have been found in the flood deposits of modern rivers.

That the sheet sandstone lithosome is dominated by the relicts of straight crested and lunate sandwaves can be attributed to preferential preservation of flood or high stage bedforms, such as the Brahmaputra River examples.

Surely Dr Walker read this, since he references Dr Conaghan's paper.

Given that the Hawkesbury Sandstone can be explained by referring to modern environment there is no reason to invoke Noah's Flood.

What about the "wall of water up to 20 m (65 feet) high and 250 km (150 miles) wide"? I did not find it mentioned in the article in the *Bulletin of the Geological Survey of New South Wales*. I have not looked at the newspaper article, but it seems that this must be the only place that this 'fact' can be found. If creationists have to resort to getting their scientific facts from newspaper articles then their cause is truly pathetic.

What about carbon dating?

Dr Walker refers to a paper by Dr Snelling where a supposed piece of wood from the Hawkesbury Sandstone was submitted for carbon dating[4]. The 225 to 230 million year old piece of "wood" returned a date of 33,720+/-430 years. However, as outlined at http://www.talkorigins.org/indexcc/CD/CD011_5.html the sample was porous and could easily have been contaminated by ground water. Also, the lab that performed the test recorded that the sample looked more like an iron concretion than a piece of wood.

Polystrate fossils

Dr Walker's article finishes with a picture of broken tree trunks standing vertically in a sandstone outcrop and writes:

> *The trunks are broken with no sign of soil or roots. They testify to the violent forces which uprooted and smashed an ancient forest...*

However, floods are well known in modern river systems. There is no reason to invoke a worldwide flood to explain tree trunks in fluvial deposited sedimentary rocks.

Conclusion

Once again the creationists have failed to make a convincing argument for why current mainstream science should be rejected in favour of their fairytales. When the geological evidence is honestly examined it is found that it best fits the Actualism model used by modern geologists.

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[3] In the "Letters to the Editor" section of *The Australian Geologist Newsletter* ISSN 0312-4711, issue No. 110.

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Australian Skeptics Eureka Prize for Critical Thinking

$10,000

Entries close Friday 14 May 2004

Australian Skeptics has amended the criteria for the award of its Eureka Prize for Critical Thinking to reflect the importance we place on critical thinking in the education of young people. We have therefore expanded the categories of work suitable to be considered for the Prize to recognise the contribution of teachers at all levels of education, who have devised or instituted innovative programmes that encourage critical thinking above and beyond normal curriculum requirements.

Purpose

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The prize is designed to encourage the rigorous and critical investigation of issues, ideas and/or beliefs that have no rational basis — in effect, skeptical analysis of pseudo-scientific claims — to promote rational thinking in the community.

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A Sporting Chance for Homeopathy

Guy Nolch taps a new homeopathy market during the footy season.

Guy Nolch is Editor of Australasian Science *and does not condone driving while under the influence of alcohol or alternative medicine.*

The siren sounded and the crowd roared. And this was just in a suburban pub packed with thirsty fans welcoming footy back to the big screen, even though this was merely the start of the pre-season competition. Deprived of our favourite social activity since September, we binged until the result was beyond doubt, and in the second half we binged some more.

But as we filtered out of the bar at the end of the game I realised I was too drunk to drive and would have to take the long and sobering walk home.

But with the entire season ahead my mind kept turning over the problem of how to enjoy the footy without falling foul of road safety laws. Then I walked past a homeopathy clinic, and hit upon a cunning plan.

Homeopathy is a form of alternative medicine. Homeopaths take a herbal remedy for an illness, such as St John's wort for depression, and then dilute it many times until there is not a single molecule of St John's wort in the remedy. Homeopaths say that the distilled water retains the energy of St John's wort, and that the only depression the patient will encounter is when they see that they've paid $70 for a bottle of water.

I took this thesis to its obvious conclusion. If homeopathy works I should be able to produce homeopathic alcohol that has all the inebriating effects of the real stuff but doesn't register with the Breathalyser.

As I continued walking I happened across a bookstore that stocked the aptly named *Homeopathy for Idiots*. As I flicked through its pages I learned how to set up a homeopathic laboratory using only simple objects found in my kitchen.

First I needed some alcohol to distil, so when I got home I went straight to the household wine rack. My wife and I don't usually drink at home, so the only wine we keep is the unopened bottle from the last dinner party we had. But we now have two boys under the age of three, so our friends don't want to come to our dinner parties anymore.

The only wine in the rack was a

bottle of Grange Hermitage my father-in-law gave us. He said we should put it towards the education of our newborn, but I don't intend teaching him how to drink until he's at least 12.

I began by distilling the Grange into a set of wine glasses, and stacked these into my home homeopathy distiller, a Dishmatic 2000 that I then set to the Rapid Rinse setting. At the end of the cycle each glass was filled with a first dilution of homeopathic Grange Hermitage.

The homeovintner hard at work

I then tipped most of this down the sink before returning the near-empty glasses to the Dishmatic 2000 for a second dilution. Over the course of the next few hours I repeated this process a number of times, creating serial dilutions until I had a full load of authentic homeopathic Grange Hermitage containing not a single molecule of alcohol.

If the homeopathy mantra was correct I should be able to quaff this throughout the World Cup finals, get as sozzled as a Governor General on Cup Day and still blow zero if the coppers pull me over.

I decided to test this out the next night, when I skolled the entire top shelf of the Dishmatic 2000, jumped into my car and went cruising for booze buses. But before I could find one I was waved over by a policeman in an unmarked car.

I was inebriated with expectation as he strode purposefully to my vehicle and asked me if I'd had anything to drink. "Yes!" I squealed. "I've had a skin-full!"

Yet when he breathalysed me the result was negative. My homeopathic booze had beaten the system.

Breathlessly I told the policeman about my homeopathic Grange. He hadn't heard of homeopathy before, but he had recently completed a wine appreciation course and was keen to try Grange.

Fortunately I had distilled some of my homeopathic Breathalyser-beating booze into the original Grange bottle and brought it with me. He sniffed it, he gargled it, and then he spat it onto my car, studying how quickly it ran down the windscreen to see if it had "legs".

He said that my homeopathic wine was not as full-bodied as he had expected a Grange would be, but that it was nevertheless spicy with a hint of peanut. I then realised that when I'd performed the serial dilutions I'd left the wok from the previous night's satay in the Dishmatic 2000.

He sent me on my way and I returned home, driving as safely as if I was stone cold sober. My homeopathic approach to boozing had been a success. I would be able to continue following the footy and no one would ever know I was drunk.

And best of all, there would no hangover the following day.

Unconventional Migraine Treatments

Exploding a few myths about a painful condition.

Peter Adamson is a former President of the Migraine Society of Australia.

Most of the 'successes' of unconventional migraine remedies can be explained as temporary or permanent natural remissions and wanings, placebo effect or misdiagnosis. In this article, to distinguish the form of healing taught at University Medical Schools from others, I use the words conventional and unconventional, and refer to **a**lternative and **c**omplementary **h**ealing **s**ystems and their practitioners as AACHs.

When I was President of the now defunct Migraine Society of Australia, I became very interested in unconventional remedies, because numerous people rang me selling substances and devices which, they asserted, relieved and/or cured migraine. One man wanted to sell me a patented dental splint costing nearly $1,000. When I declined, and refused to promote it to members, he aggressively said that if I didn't want myself and others to get better, then our migraines were my fault, and hung up. (Another stock response to refusal to try AACH remedies is the taunt: "If you really wanted to get better, you would try it".) Next, a Mr H began ringing and writing about a diet supplement and wanting to join the Society. He wrote (to the Society) that he had had no more migraines since taking it — but did not mention that he had offered me a share in his profits. I told this to the President of the local ME/Chronic Fatigue Syndrome Society, whereupon she showed me an identical letter — except that it was from *Mrs* H, and replaced migraine with chronic fatigue.

Some newsletters of migraine sufferers' (migraineurs) associations, and the Internet, encourage migraineurs to 'publish' accounts of treatments that they believe have helped or cured them. This study is based mainly on two such newsletters from over a five year period. I have not named sources because to do so may embarrass some people. (The editors of the sources studied, and many Internet sites, publish contributions without comment. While this may help some letter writers feel good, it encourages migraineurs to try ineffective treatments, some of which are expensive — for example, electronic devices, replacing aluminium cookware and courses of indefinite length.)

Proving that a treatment can ameliorate or cure migraine is made very difficult by natural remissions, waxings and wanings, and high placebo response. It is further complicated by misdiagnosis and ambiguous use of the terms 'migraine' and 'headache'. ('Cause' and 'trigger' are also often used interchangeably. However, as with asthma, the 'ability' to suffer migraine is inherited, ie, the cause is genetic; individual attacks are triggered.)

1. Natural remissions due to age

Letters from migraineurs claiming that they have been 'cured' often contain such comments as:

- *after suffering migraine for over 30 years;*
- *for over 40 years;*
- *whilst in her fifties.*

Of more significance than the cures described is that these writers were probably at or above the age when permanent natural remissions are common, thus these 'cures' were likely the result of age.

2. Changed symptoms because of age

- *After suffering migraine for over 30 years* [she] *discovered by chance a remedy; when she experiences the aura phase she immediately eats raw peeled carrots which clears the symptoms within a short period*
- *... my attacks in my ninetieth year had become more frequent.*
- *As soon as the diamond pattern appears round my eye, a quick dash into the garden for 6 feverfew leaves to make a sandwich, then six minutes wearing a mask in a quiet room and away it goes.*

A man aged about 55, who had been 'converted' to a proprietary herbal remedy-for everything, asserted that it had cured his migraine. Almost as an afterthought he told me that he still got visual auras.

It seems likely that neither the carrots nor the herbs had any effect, but that they now have migraine aura without headache. As very few migraineurs know that migraine can occur without headache, it is reasonable for them to think that they have been cured when, with age, their headaches stop.

3. Remissions of unknown cause

Contributors to newsletters often state that they have tried everything or many treatments, give some examples, then come to the point: *'but none of them worked until I tried ...'*

The number of migraineurs who, on any one day, spontaneously enter a migraine free period, though a small percentage, is large enough to explain numerous claimed successes. The same applies to the many migraineurs who, for years and decades, keep on trying remedies until one coincides with a natural remission or waning. In contrast to these coincidental cures are the experiences of those who write: *'I have tried numerous treatments with no long-term effect.'*

4. Placebo effect

The placebo response to both new and existing migraine treatments is so large that the remissions resulting from it could be called placebo effect remission.

5. Success reported too soon after a noticed or imagined improvement

- *in the ten weeks since* [taking linseed daily] *I have been migraine free*
- *About 2 months ago I quit tea, coffee and all chocolate completely. Since then my headaches have been extremely rare by comparison. This is the third month now and I can hardly believe it. Migraine free.*

The last writer is probably also an example of changed symptoms for she also states:

- *I do get some symptoms like feeling a bit queezy* [sic] *or a dull ache over one side of my head/face, but never a full blown attack.*

These 'cures' are probably examples of natural or placebo effect remission.

'Insufficient time' is used by some AACHs (accidentally or purposefully) to 'prove' the efficacy of their treatments, when they present to the media one or two people they claim to have 'cured' before waiting long enough to rule out temporary remission. Neither do they write up, report or publicise their failures.

6. Misdiagnosis

- *her sinuses could create problems so when she feels a headache* [presumably migraine] *developing she presses each side of her nose quite hard with her hands and finds that the headache often disappears.*

A young man, though absolutely certain he had migraine, never became extra sensitive to light or sound. Eventually be told me that he had had a very large polyp removed from his nose.

A man who began to suffer bad headaches in his 70s was treated with migraine medications for two or three years without effect. After changing to sinus treatments the headaches ceased.

Although more migraines are misdiagnosed as sinus headache than the other way around, these three cases seem reasonably likely to be sinus headache not migraine.

Some studies by chiropractors, of the efficacy of chiropractic for migraine contain reservations such as:

- *Analysis of the outcome is complicated by the fact that it is not clear whether the patient's headaches were initially misdiagnosed as common migraine when in fact, they were cervicogenic; and*
- *The majority of* [ten] *cases reviewed as classic migraines were in reality not correct diagnoses in accordance with standard classification systems, (Cervicogenic headaches are easily confused with migraine because they share numerous symptoms including one-sided pain and nausea.)*

The claims of neck-and-spine workers (ie, chiropractors, physiotherapists, masseurs, etc, to be able to cure migraine are often successful treatments of cervicogenic headache. This is not to say that they can not help reduce migraine severity and frequency. However, I suggest that any efficacy results from diminishing neck and back pain which then decreases stress and the anxiety that may be caused by impaired mobility and chronic and/or severe pain; and is not, as they assert, because migraine is caused by neck vertebrae, forced from their natural alignment, stretching or pinching nerves, muscles, arteries and blood vessels. With regard to massage, its relaxing effect may, by lowering stress, help prevent attacks.

7. Samples too small to be significant

Occasionally newsletters publish letters from people claiming to have found a, or the, cause, such as difficult birth, amalgam fillings or sugar, and asking for feedback. When the next edition contains several or more positive responses, some will consider the theory proven. With regard to difficult births, readers could regard anything from an unusually long or arduous birth to be difficult.

And, the editor should have pointed out that as the newsletter's circulation was several thousand, numerous readers would have had difficult births, nearly all will have amalgam fillings, and virtually all will consume sugar.

8. Multiple remedy findings

There seems to be a personality type whose ceaseless, over-assiduous searching for remedies, causes and triggers, results in them finding numerous, and often fanciful, treatments. Their relentless searching can also make their (and their families') lives miserable and possibly trigger attacks.

It may also be that a significant proportion of the most fanciful treatments come from these sources, for example, that migraine is triggered by:

> plastic lenses, irregular bowel function, hiatus hernia, new and full moons; that food triggers can be identified by radiesthetism (food dowsing); that migraine can be relieved/cured by 'playing badminton once a week and eating a large tin of pink salmon each week', electronic and magnetic devices, and geopathic stress consultations to '[identify] conflicting geological features beneath homes (a kind of dowsing)' and then rearranging furniture to compensate.

Some other observations

1. Trying multiple remedies simultaneously

- *I gave up chocolate, cheese, red wine, sherry, oranges, Marmite and vitamin B supplements and came off HRT for a year. I had my eyes retested and invested in new glasses with graduated tinted lenses ... Result no migraines despite stressful projects ...*

- *I replaced my porridge with All Bran and started to feel unwell ...*

While several (or none) of the things eschewed might have triggered her migraine, she, after changing her breakfast cereal, concluded that vitamin B was 'the culprit': yet vitamin B2 is accepted by both conventional and unconventional practitioners as one of the few proven migraine preventives.

2. The 'genuine' placebo effect.

One consequence of treatments that work is, for want of a better name, the 'genuine' placebo effect.

- *The 'cure' for me has been* [a triptan] *— and the psychological effect of knowing I can carry it with me — lessening the fear of leaving the house. Here the efficacy of the drug seems to have lowered anxiety and stress so much that it is having a prophylactic effect.*

3. Not quoting sources of studies

The newsletters, and books by AACHs, often quote as proof 'a study', or 'researchers have discovered', or 'a leading magazine said'.

The study most used by AACH writers is probably "Is Migraine Food Allergy?" [3] and they use it 'to prove' that allergies trigger or cause migraine. (The ambiguous use of allergy in the title permits AACHs to use the traditional broad definition, namely 'unusual sensitivity', which allows them to include food intolerance.) I have yet to read one AACH writer who provided enough information to find it. None mentioned that the children studied had 'severe and frequent migraine', that almost half of them also 'had behaviour disturbance (mostly hyperkinetic)', that over a third had rhinitis and 16% had epilepsy. Not one mentioned the authors' caution:

> *However, we cannot securely extrapolate to other groups of patients, such as those with infrequent mild migraine or adults.*

Nor did they mention the authors' warning:

> *Diets are dangerous and socially disruptive, so such treatment should be adopted only when the symptoms are severe and only under experienced medical and dietetic supervision.*

AACHs having cited this 'proof' that migraine is caused/triggered by allergies, then prescribe their favourite, often very restrictive, diets to migraineurs of any age.

One typical AACH writer on migraine and headaches has, unlike most conventional medical experts, written on at least 15 'specialties' including predictably: arthritis, *candida albicans*, high blood pressure, prostate, skin and varicose veins. He also suggests, again typical of AACHs, that young migraineurs could be copying adults.

4. Conflicting testimony

- *I stopped eating bananas and chocolate and it has helped a lot.*

- *... recently* [my wife] *changed her nightly snack to a banana and her migraine attacks have ceased.*

- *I discovered that my first* [food] *culprit was bananas.*

- *She 'has found it very helpful to eat ... a banana ...*

- *She is migraine free since she 'recently started to take 2 White Willow tablets ... She also gave up eating bananas at around the same time*

As these letters appeared over several issues; anyone who did not read all their newsletters thoroughly, could conclude that bananas either triggered or prevented migraine. That 'cures' recommended by some are thought by others to cause or trigger attacks may result from the placebo effect, the 'reverse placebo' (or displicebo) effect, spontaneous remissions and wanings, prejudice for or against conventional or unconventional medicine.

5. Conflicting testimony

This is particularly common with reactions to prophylactic drugs. Some endorse antidepressants, some warn against them, often without saying which type of antidepressant, let alone which specific drug. Editors should ask whether the doctor gave any instructions about taking them or just wrote out a prescription and said 'take these' or something similar, or whether the taker has followed the doctor's instructions about taking them, and point out that responses to drugs vary, sometimes greatly.

6. Positively wrong, sometimes harmful recommendations

Despite the widespread acceptance of the efficacy of Vitamin B2 (riboflavin) in migraine prevention, one newsletter published a member's letter stating that her migraines came back when she changed her breakfast cereal to one *'high in vitamin B which seems to be the culprit.'* This could cause people not to try B2.

The strict following of some remedies could lead to diet deficiencies. For example;

> *One sufferer has found that she is sensitive to green vegetables. Now, if she eats any she gets a migraine lasting up to 5 days.*

> [She] *was very wary of taking medication ... as she was still breast feeding. Her homeopath recommended Feverfew in essence form. The essence is available from ...*

Not only does this ignore the fact that feverfew is a drug or medication, it appears that the editor did not check the advice: did the essence contain the recommended level of *parthenolide* (the level in plants varies down to zero), why was the essence 'harmless' when, by inference, leaf, powder, capsule, tablet and infusion were not? Ironically perhaps, one authoritative reference states: '*No adverse reports during lactation are known"*, [4] (On the other hand some companies' product information states that feverfew has adverse effects and is contraindicated during pregnancy and lactation, while other companies do not mention either.[5])

A comment on editors who promote AACH remedies

Editors who repeatedly offer hope in the form of unproven remedies should consider that repeatedly offering hopes, which are then dashed, is likely to lead to disillusion, demoralisation and may even bring on depression.

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A footnote from the Editor

There's nothing like anecdotal evidence to strengthen a case (or so many purveyors of dodgy cures would have us believe). However, Peter's article did confirm some things I, as a lifetime sufferer from migraine, have long suspected.

I experienced my first migraine attack when I was 14, in a paddock far from the house, on my parents' dairy farm. I had violent aural displays and then a headache of such intensity it is hard to describe. I was certain I was dying and lay down in the shade of a tree for two or more hours until the symptoms abated, then went home. For some reason I did not mention it to my parents, and forgot about it when I didn't die in the next couple of days.

Over the next 12-14 years I suffered about six similar attacks of great severity; loss of sight (in my case, the reverse of tunnel vision — I couldn't see immediately in front but had peripheral vision), jagged red and blue flashes, crippling headache lasting for some hours, but not nausea, another common symptom. They always happened in difficult situations, rarely when I was at home, and the only way to alleviate them was to lie down in as dark a place as I could find. Because of their comparative rarity, I was never able to identify any specific trigger.

Then, when I reached my late 20s, the migraines disappeared for 15-20 years; I thought I was free. When they came back there was a welcome difference; the aural symptoms reappeared, with little or no headache (I have a sneaking suspicion that at least some of those people who claim to be able to 'read' auras, might be suffering from undiagnosed migraines) and were much shorter in duration (20-30 minutes). The downside was that they became much more frequent, around ten to 20 times a year at irregular intervals. These symptoms, too, have diminished with increasing age and now they hardly worry me at all. I have tentatively identified a trigger — a flash of bright light from car windscreen, or some other surface. It certainly appears to be genetic in origin; my daughter suffers from the illness, and my eldest grandson, approaching puberty, has shown some symptoms.

The worst experience I ever suffered in the later, milder manifestation of the ailment, was to develop a migraine while driving along Elizabeth St, Sydney at peak hour. I do not recommend it.

Reading Peter's article convinces me that what I have experienced is a pretty normal occurrence for migraine sufferers. I hope it provides some useful ideas for others who sufferer from this debilitating syndrome.

Question With Many Answers

Seeking to answer an age-old question.

Peter Bowditch is a Vice President of NSW Skeptics and a self-professed Ratbag

***Science and Religion: Are They Compatible?;* Paul Kurtz, Barry Karr and Ranjit Sandhu (Editors) Prometheus Books 2003**

This book is a collection of articles which have been previously published, many in the pages of *Skeptical Inquirer* magazine. Like any such anthology the quality is variable, although there are no essays which are actually bad. My main complaint is that the relevance of the articles varies too much. Anthologies of this type usually lack the coherence of a set of papers published out of single conference or symposium, but it seems particularly noticeable here. There seems to have been a temptation to include anything which had anything to do with both science and religion, and this blurs the message and the question being asked. The question being asked in the title is a theological and philosophical one, and papers about the anthropic principle (that the universe is made to fit us), the efficacy of prayer, the existence of souls, the provenance of the Shroud of Turin, near-death experiences and communicating with the dead are side issues. They are interesting issues, certainly, but they don't really speak to the question of the compatibility of science and religion.

There are three ways of looking at the relationship between science and religion. The first of these could be called the "Conflicting Worlds" view, and this states that there is a competition going on between science and religion out of which one winner will emerge. This is the position of the creationists and any other fundamentalists who say that there is only one truth, it is contained in scripture or inspired decree, and there can be no argument against it. Under this view the question of compatibility between science and religion is meaningless as compatibility is impossible. I should point out that this position is not just held by the religious side, but is also the position of those who would say that all skeptics must necessarily also be atheists (in the strong sense of the word, which implies a belief that there is no god at all). A paper by Richard Dawkins in this collection, "You Can't Have It Both Ways: Irreconcilable Differences?" puts him firmly in this camp. To Dawkins, the idea or religion is so silly that any concession is betrayal.

The second position could be called the "Same Worlds" view, which holds that science and religion are just different ways of talking about the same thing. This position is usually only held by religious be-

lievers, with one outstanding example being the paper "*Fideo et Ratio*" written by Pope John Paul II in 1998. It is a struggle for anyone to maintain this position and it is no coincidence that it can really only be ably defended by someone with both the Pope's obvious intellectual capabilities and his motivation to explain to himself how someone so smart ended up in the job he has. It is the position adopted by the creationists when they talk about Intelligent Design, but it is used as a disguise there rather than a philosophical argument.

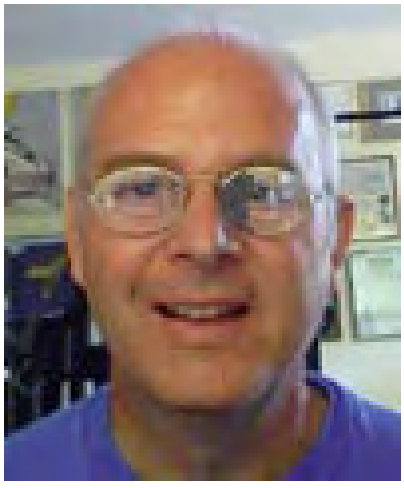
The third position is one of "Separate Worlds", where science and religion talk about completely different things and there is only a problem when one side trespasses into the other's turf, such as when scientists try to measure the weight of the soul or creationists want myths taught as science. This collection includes one of the most well-known expositions of this position in Stephen Jay Gould's "Nonoverlapping Magisteria", where Gould argues that there are matters which are the proper concern of science and others which are legitimately addressed by religion. Science talks about things that are measurable and observable. Religion talks about the supernatural and can offer guidance on morals and ethics (guidance which nobody has to follow unless they want to). This does not imply, as some religious people would insist, that without religion there is no ethics. I don't know whether we have a gene for altruism or the golden rule, but many people seem able to get by without a church dictating rules of behaviour.

I think that this current book would have been better if it had addressed these three worlds, and the papers had been categorised accordingly. Having said that, I still think that this book would be a useful addition to the library of any skeptic. As to whether this book answers the question "Science and Religion: Are They Compatible?", I have a sneaking feeling that the editors thought that they knew the answer before they started work on the book. In fact, knowing the editors, I would be surprised if they had not. Not that there's anything wrong with that, of course. We all have biases, but as long as these are admitted then nobody has reason to complain. No single book is ever going to definitively answer the question asked in the title, but each one adds a little more to our understanding of the problem.

I would like to finish with a comment about the relationship between religion and skepticism in general. Whenever the topic comes up people are expected to have a firm position, with the usual orthodoxy being that skepticism equates to atheism. One of the problems is terminology and the meanings of words, and unfortunately the two most common words used in the discussion have meanings and loadings which have changed over time. The word "agnostic" used to mean "don't know" (the true skeptical position) but now seems to mean "I'm waiting to find out". The word "atheist" really applies to people who don't believe in a particular personal god, but now seems to mean a belief in the total non-existence of any god. To me, these labels now apply to the "same worlds" and "conflicting worlds" models respectively, with agnostics accepting that anything might be true and atheists saying that religion is impossible. I follow the "separate worlds" philosophy, but in my own life religion plays no part. I would like to coin a new word for this, so perhaps I should describe myself as an "apatheist". I just don't care whether there is a god or not, because it makes no difference to me either way. That doesn't mean I don't want to keep discussing it and reading books about it, of course. It is still a very important matter calling for the attention of skeptics, but the intellectual exercise of enquiry shouldn't require labelling of the participants.

Dangerous Interest in the Occult?

Tracing the history of occult beliefs.



Rob Hardy practices psychiatry in the USA and is a regular reviewer for the Skeptic.

***Lucifer Ascending: The Occult in Folklore and Popular Culture,* Bill Ellis University Press of Kentucky.**

The worldwide popularity of the Harry Potter books has been seen as a boon not just for publishers, but for children who are getting excited about reading and are looking forward to reading the next one. But a large segment of American — and, to a lesser extent in Australian — society does not see this as good news. The books are seen by some Christian fundamentalists as spiritually dangerous to children, since they introduce concepts of the occult in attractive ways. Certainly not all Christians feel this way, recognizing the books as belonging to the type of fantasies written by Christians like C. S. Lewis and others. If fundamentalists feel that the Harry Potter books are the works of the devil, however, they are in good historical company. In *Lucifer Ascending*, Bill Ellis has continued an academic query which he described in his previous *Raising the Devil*. While his current book is not an analysis of Harry Potter books and the movement against them, J. K. Rowling's works are shown to be just a contemporary part of folklore beliefs that have gone back for centuries.

Ellis shows that it will not do simply to refuse to accept that witches and their storied kinfolk do not exist. Leaving aside the question of whether occult spells and cures actually, physically work beyond the power of suggestion, it is clear that there have always been those who thought themselves witches of some sort, and are thought so by their communities. The pattern, however, from the Inquisition and Salem Witch Trials down to the present, has always been that crusaders have exaggerated the number and the power of witches and Satanists. Importantly, diabolical rituals are nothing new in child and adolescent culture. Remember that the Salem witches were as young as eight years old, and most were teenagers. Teens have always had ways of rebelling, and dabbling in the occult has been one way for centuries. As in *Raising the Devil*, Ellis shows that the occult allows people, young and old, to participate directly in an exciting mythic realm, and such participation validates rather than directly opposes the dogmas of the church.

Witchcraft was (and is) practised in opposition to an increasingly ra-

tionalistic theology. It usually had limits set by the community, and while sometimes there was violence against witches, usually witches fit into their roles smoothly. Hexes and anti-hexes existed in a complex system of checks and balances that were well learned by the communities involved, and followed justice as the community saw it. The practices were passed down among small groups and were a grass-roots tradition that supplemented, rather than defied, orthodoxy. The practices allow marginalised groups to use traditions to give themselves a sense of degree of control over their lives, but can also be employed by those who have no particular conflict with society.

There are certain bits of hardware that are helpful in sustaining the belief in the lore of witchcraft. One is the "grimoire" or magic book, a "black book" like the devil himself carried. There is a tradition that if some naïf opens up the book and starts reading, he will be unable to stop or do anything else. (If you are wondering if the Potter books have been accused of being grimoires, the answer is yes, although probably not by that term. One pastor warned that when one edition went on sale, "These books were taken into homes everywhere with a real evil spirit following each copy to curse those homes.")

This is just another facet of the idea that forbidden books can trap the unwary, but "cult cops", the police officers who during the "satanic panic" of the 70s and 80s specialized in finding satanic cults, were sure that finding such a book meant they were onto something big. The books are a type of fetish, or object supposedly imbued with special powers, and so, surprisingly, are chain letters. Immediately after printing became commonplace, letters encouraging, say, obedience to the Ten Commandments, embellished with cabalistic symbols were circulated, each with an instruction to make copies, give them out, and not to break the chain under penalty of a curse. (Yes, the familiar "One person broke the chain and his house burned down" warning has a long history.) Keeping a chain letter in the house or on one's person, conversely, brought good luck. Ellis also analyses the long and peculiar history of the luckiness of a rabbit's foot.

Harry Potter was forbidden to go into the forest on the grounds of Hogwarts Academy, and did so anyway. Since medieval times, people have made special trips to, say, Neolithic monuments. Folklorists call this "legend-tripping," and teenagers have kept up the tradition. The trip, often to a forbidden house or a graveyard, is made in a cultivated atmosphere of fear; stories of previous trippers who suffered the penalty for violating the taboo get passed along and keep the tripping alive rather than restraining it. Once they are there, the trippers are primed to see something spooky and often do. Also, the scary setting provides a reason for a girlfriend to snuggle up to a boyfriend: "Thus, the legend-trip may have an aphrodisiac function as well."

Young people are especially prone to attempting such spiritualistic feats as mirror-gazing, and especially using the Ouija board. The boards and planchettes are an outgrowth of table-tipping and automatic writing practised by mediums. The most successful, the Ouija itself, was patented in 1892, and remains a best-seller, second only to Monopoly in the Parker Brothers' line. Ellis shows that calling upon spirits by the Ouija board is quite similar to calling spirits out during exorcisms, an illustration of how belief in the occult actually compliments and supports orthodox belief. Frightened fundamentalists may be taking the Ouija threat too seriously; one student user says, "You really don't get any answers that mean anything. We just get drunk and have a good time." But fundamentalists have to confront a paradox. Sometimes the young people summon up Satan only to command him in the name of Jesus; if Jesus does show his superiority over Satan this way, who is to say it is wrong to give him the opportunity?

Ellis, himself an active Lutheran, makes clear that he is not advocating for the folklore practices described here, or even apologizing for them. He admits that while many of the practices might be harmless, spooky fun for teens, there may be bad consequences as well. He gives such concrete examples as vandalism resulting from a graveyard visit, rather than the possibility that Satan might take over the souls doing the trip. His is an academic work, but even so, with its unusual themes, it is an entertaining one. He is especially amused by the famous spoof article in the satirical paper *The Onion*, telling about how satanic groups were being overwhelmed by Harry Potter readers trying to join up. The article was ridiculous, but was sent as a chain letter by many Christian youth counsellors as a *bona fide* warning about the danger Harry poses. Their more Internet-savvy students were embarrassed that their elders could not tell reality from a joke. *The Onion* just gave the elders an opportunity to overreact, but Ellis's book shows that the pattern of overreaction, giving definition to both orthodoxy and the occult, has been going on for centuries.

Science Slays Superstition in Scotland

We are always interested to learn how others go about encouraging young people to accept a rational understanding of the world. Recently we made contact with a colleague in Scotland, sending him copies of our CD and Water Divining DVD. Here he reports on a novel event.

***Superstition - Science Fact or Fiction?* Glasgow Science Centre Fri 13th - 17th February 2004**

I've always wanted to do this. I first heard of such a 'Superstition Bash' in 1997, put on by CSICOP (Committee for the Scientific Investigation of Claims of the Paranormal) in the USA. The idea has caught on with similar groups around the world - not only because it's an entertaining way of poking fun at superstitions, but also because it provides the media with a great story for Friday 13th!

Happily, that's exactly what happened in Scotland over the February mid-term schools break. Our superstition event received extensive coverage on national morning television; Scottish TV news; a BBC Radio Scotland interview; on-site Clyde 1 broadcasts; as well as articles in several newspapers. My marketing colleagues have described it as the largest media event for us, second only to the science centre's opening three years ago. What's more, we're apparently the first science centre in the world to host such an event.

Photos of the event are available here: http://superstition.dimaggio.org

I'm just delighted to have promoted sceptical thinking (something sorely needed today) with thousands of our visitors over five busy days.

We tried to accomplish this in six ways:

(a) Superstition Challenge — a trail consisting of 13 superstitions that supposedly bring bad luck if disregarded. Visitors were encouraged to deliberately ignore them or do the exact opposite (eg. smash a small mirror; walk under a ladder; mix red & white flowers; ignore a single magpie; open an umbrella, etc). They received a certificate to celebrate their courage, and were asked to leave feedback.

(b) "Do You Feel Lucky?" science show — an entertaining live performance dealing with Dr Richard Wiseman's four principles of luck. Activities included a member of the audience winning a £5 coin; a powerful 'psychic' feat demonstrated (and revealed to be a trick, without the explanation); a large mirror smashed with a sledgehammer; and a mass umbrella opening — all in an attempt to invoke copious 'bad luck'.

(c) "What's Your Sign?" — live planetarium show about astrology. How did astrology originate? How accurate is the concept after 3500 years? What will happen to astrology when we colonise other planets? Included is a fun astrology horoscope with 13 signs.

(d) Fascinating Facts (taken from Richard Wiseman's research) — for visitors to read while queuing at the ticket desk eg. did you know that Scotland is the most superstitious country in Britain (46% of the population) — compared with England (42%), Wales (41%) and Northern Ireland (40%)?

(e) "Mystery Investigators" handout (www.mysteryinvestigators.com) — available throughout, and included articles about "13"; the Loch Ness Monster; astrology; as well as an Origami star activity.

(f) Coffee & 'misfortune' cookie special — in our restaurant, with biscuits in the shape of number 13.

Over the five days the science centre received approximately 1200 visitors per day, and at least 60% attempted the Superstition Challenge (unfortunately we only had 540 small mirrors for smashing, and had to limit these to one per family). In total around 500 people attended the science show and about 200 the planetarium show.

We ended up enjoying the greatest success with this event, even though we tried to call down all the bad luck in the world! I believe this topic is popular because it is a very human story, all about our deepest fears and private thoughts. The reactions of visitors were fascinating to watch — some thought we were totally mad, while others were delighted to publicly demonstrate their disregard for superstitions. We saw more than one spat between disagreeing partners! And it was something refreshingly different for our staff, who particularly enjoyed the media attention, on-the-spot radio interviews, etc

It works, and we're definitely going to run it again (in fact, we've already started stockpiling old mirrors).

Why don't you try it? Please contact me if you're interested, and I'll share with you all the information I can. The next Friday 13th is in August 2004.

Mario Di Maggio
Staff Scientist:
Planetarium Glasgow Science Centre
mario@dimaggio.org

Blowing the whistle

It is not often that we hear the story of what goes on inside the bodies of which we are critical. We are pleased, therefore, to have been of assistance to the writer and to publish her complaint.

I recently came across your 'Operation Termite' web page (*the Skeptic* 14:4, p8) which questions the organisational abilities of the Australian Psychics Association, including its president Simon Turnbull. As an ex member of the APA, I am writing to confirm some of your opinions, found throughout your "Operation Termite' web page.

Throughout my membership, I too, have found the APA extremely disorganised, especially when it comes to posting out membership forms, returning phone calls, general administration duties etc. When I first enquired about membership with the APA, I lost count of how many times I repeatedly contacted their office to ask, "When will my membership forms be posted?", or "Have you received my money order?" Often I was left wondering who or what was running the APA. When I first joined two years ago, my psychic ability was never tested or examined, at any point. I was never asked if I had a background in counselling either, or if I had any relevant counselling experience. It was too easy to join the APA, just get your friends to fill in those four statutory declarations and hand over your money!

I consider them are no benefits of an APA membership - no membership card or newsletter to speak of. The two 'benefits', if they could be called that, are a membership certificate issued upon payment of annual fees, and a free listing on the APA website. Big deal! Is that really worth $55.00 every twelve months? Even so, the "APA has proven how disorganised they are, by not maintaining accurate and current contact details on the APA website for their members.

There is no opportunity for professional development or guidance available to members, if any type of professional problem arises. If prospective applicants of the APA must be trained by other psychics who have been running classes for ten years or more, does Simon Turnbull oversee the psychic training himself, or at least designate such instruction to another skilled and credible individual if interstate? And just who are these psychics who have trained prospective APA members? Has Simon Turnbull examined the credibility of those teachers too? If this training is an important prerequisite for APA membership (refer to Operation Termite), I ask again, why was my, and many others', training not checked up on?

Throughout my two year membership I have had only one phone call, which was from the APA website. When potential clients have telephoned me enquiring about a reading, I always, without fail, asked "Where did you get my telephone number from?" Only once was the APA mentioned. During a recent telephone conversation dated 10/02/04 between myself and Simon Turnbull, he stated "We have been handing your telephone number out to clients and it is not our problem if you were not home to answer the telephone." How is it that Simon Turnbull knew when a client was telephoning me for a reading and that I did not answer the phone? Oh that's right, he's psychic! Any unanswered telephone calls (like many other people) go straight to my answering machine which I would follow up. Throughout the above telephone conversation I had the impression that he was not interested in discussing the reasons why I resigned from the APA. When I pointed this out he retorted quite abruptly, "Can you make it quick? I have five other people to phone." I find it hard to believe that he has any concern or interest in ensuring APA membership satisfaction.

At the time of joining I was told by Simon Turnbull that "As a member of the APA you will receive our regular newsletter". Since resigning, the current APA secretary Hiromi, informed me over the phone "Sorry, that is for those who work on our psychic line only"! Once again, this was not communicated to me at the time of joining. Talk about poor communication amongst the APA!

Ah the phone line, what a shambolic and ridiculous examination process that was. One of the questions I had to answer for the current APA secretary was "Would my child attend the local school or the school that is more distant than the local school?"

Genuine and professional psychic counsellors do not deal with such ridiculous questions which fall in the category of 'fortune teller'. She also told me that "we have been referring people to you who want readings" but I know this is untrue. I have never been asked by the APA to pay an additional $5.00 fee for their client referral service. There is another point I wish to make. At the time of joining the APA, this referral service was never mentioned to me, nor did I ask them at any point to refer clients directly to me. When I asked Simon Turnbull during the 10/02104 telephone conversation about the $5.00 referral fee he took step to avoid answering the question. What has Simon Turnbull and the APA got to hide?

I personally believe the APA should not be recommending psychic consultants, without first interviewing and examining prospective members. The selection process should include both written and practical examinations of intuitive ability, professional ethics and have prospective APA members demonstrate their ability to deal with clients effectively. Another point worthy of mention is the fact that I have never received the APA Code of Ethics on joining the association, nor did Simon Turnbull speak of it's existence to me at any time throughout my membership. However I have since discovered it by accident on the APA website.

In closing, I conclude the APA is nothing more than a money making scam for Simon Turnbull and does nothing to protect the public from inexperienced and unethical practitioners of the psychic arts. The lack of selection criteria clearly demonstrates this.

Linda
Dissatisfied ex member of the APA
(Full Name and Address withheld at writer's request)

Letters

MS and pharmaceuticals

Veronica Glasson.
(Address withheld at writer's request)

In the five years since I was diagnosed with multiple sclerosis (MS), recommendations of alternative therapies have sometimes been made by non-professionals who are uncomfortable with my disability and want to say something positive. Given the dearth of effective conventional treatments for MS, it's not surprising that the first thing they think of is alternative medication. My irritation with them is more about their notion that I must be cured, than about the form of cure they are advocating. Yet the comparatively large amount of money and the tactics used by pharmaceutical companies to covertly market their MS products escapes the attention of many sceptics.

Using his critical thinking skills, Jef Clark would have noticed in his process of self-education about MS that the "proven treatments" for MS, namely the interferons, may reduce disability in the short-term by about one-third in about one-third of patients. The long-term effects are unknown. The modest benefit (if any) of immunotherapy to any given patient comes at a financial cost to them, a public cost to the Pharmaceutical Benefits Scheme and a high risk of unwelcome side effects. My neurologist is aware of cases of lymphoma starting in the injection site, but cannot get the drug companies to give him any information about it. Then there are the steroids, which most of us have used to shorten periods of exacerbation even though we know their long-term effects are only negative.

It is the choice of each person with MS whether they want to take their chances with the interferons (and the steroids). What is of concern to me is that drugs such as the interferons, with such limited efficacy and unknown long-term effects, are pushed so relentlessly by the MS industry. I have not consulted a neurologist once since my diagnosis without them recommending a beta-interferon. Likewise staff at a MS Society have consistently advised me to use them, and "our four pharmaceutical companies" (their words not mine) have recently provided funding to help set up an immunotherapy training and counselling room, and a massage room at another MS Society. Now, why would they do that? In one episode of *The West Wing*, one of the beta-interferons was portrayed as a magic bullet. The morning after the TV show was aired, I heard an MS Society worker remark how good it was that the show featured the drug.

Altmed proponents are easy and generally harmless targets. The pervasiveness of interferon marketing in the MS industry puts considerable pressure on people with MS to use the drugs, or justify why they don't want to. People with MS would benefit from an exposé of the relationship between MS Societies and the pharmaceutical companies. Just because a medication is conventional doesn't mean it's particularly effective or harmless.

Cynical about Skepticism

Mark Freeman
Kuranda QLD

Quarter after quarter, with no quarter given, Australian Skeptics wage an irrational and ill informed war against the forces of truth, reason and the Diogenes way. In virtually every issue some writer in a fit of ego-congratulatory, self back-patting, espouses their pride in acceptance of skepticism and in the same breath lauds their opposition to "negative" cynicism. In the last issue, we had Tory Shepherd quote a dictionary definition of skepticism, and then because the definition did not match her self perceptions, decide that she would write her own understanding of the meaning of the philosophy. It surely must make it very easy to win arguments if you are allowed to produce your own axiomatic definitions.

As a historian of no note, I believe that it is not only important to understand where you are but also how you got here. This applies not only to geography and science, but also to philosophies. Essentially, whose shoulders am I standing on?

Scepticism (actually Pyrrhoism) was reputedly started by Pyrrho who lived in the time of Alexander the Great, or about 360 - 270 before Christ. He toured (waged war) with Alexander and his visit to India had enormous input to his beliefs. The fakirs he met there convinced him that happiness developed from a total indifference to belief of any kind. He espoused that judgement of virtually anything was unsound and that people would be happier if they believed everything, purely on the basis that seeming reality is actual reality. Such a stance would bring joy to the hearts and money to the wallets of every alternative medical practitioner on the planet. Magicians would be thought to actually do what they seem to do! Political policy speeches would be honest and of course the children were thrown overboard. The poems of Tinton, from where we get most

of our information on the esteemed but bizarre Pyrrho, record that the magic rope trick of India was reality so far as Pyrrho was concerned.

Perhaps I misread the essential thrust of your (our) fraternity, but if these values align with the Australian Skeptics', please cancel my recently renewed subscription and remit whatever paltry sum your subscription officer deems suitable after deducting the necessary costs of chicken entrails. I seriously doubt Joshua-like epistles from anybody, especially somebody asking me for money.

A student of Socrates, to wit, Antisthenes, instigated Cynicism. Perhaps he didn't like chicken entrails either. However, the name of cynicism came from a fellow called Diogenes. This was the most even-tempered man in Greece; he was mad all of the time. He lived a fundamental lifestyle, often in a broken water urn at the entrance of the local temple. He made St Francis look like a capitalist board member. Because of his lifestyle he was considered "like a *canus* (dog)" and that is where the word Cynic derived. Much of his philosophy tended to centre on his belief that luxury was unnecessary. However, it is noteworthy that Diogenes was very willing to relieve others of their luxuries whenever the opportunity arose.

He had possibly the second most dehydrated sense of humour in history, coupled with an innate understanding that most people like to be deceived. When you consider that 100 is the average IQ, and then have a long and meaningful with someone who professes such standing, it is easy to understand why people embrace asinine self-deception.

Diogenes questioned everything. He refused to accept that people mean what they say and wanted proof that proposed discoveries were actualities. He was no respecter of person and told Alexander to "Get out of my sunshine" on a cold morning when Alexander had taken considerable effort to pose as a supplicant. His great opponent in thought formulation was the noted Plato. On one occasion when Plato was holding forth in the *agora* and espousing that humanity was a featherless biped, Diogenes purchased (more probably stole) a plucked chicken and held it up to the crowd exclaiming, "Here is Plato's man!" Plato immediately changed his definition to a featherless biped with flat claws. Diogenes comment was "And you think I'm mad!' His behaviour was designed to shock and he often did the unacceptable so long as it caused no physical harm to others. Unwilling mental development was their lookout. Defecating in public was one of his favourite lessons. As he said, "Pissing is only a small thing but I have to do it for myself". This was in response to a wealthy man who believed he did not have to do anything for himself.

Much of his recorded thinking is anecdotal and I urge all credulous skeptics to examine his life and the many amusing and profound dealings that formulated his philosophy. Cynicism is often perceived as arrogance, but is really a humble acceptance that stupidity is the norm and one's own failings expected. As an aside, are there credulous skeptics? By definition, yes!

"This is all old history" I hear you blub. "The meanings have changed and the philosophies buckled". Maybe; but perhaps the Australian Skeptics should inform Oxford, Macquarie, Collins and Britannica so that your apocrypharic board is building their room on the rock. Me, I'm happy to stay a rational cynic.

Having thrown the burley to the baitfish and before the epistle escalates to an article; I depart.

In praise of Cynics

Robert A. Backhouse
Closeburn QLD.

From the *Macquarie Dictionary*: "A cynic is a sneering fault finder who doubts the goodness of human motives" so as a card-carrying cynic of long standing, I could not wish to be described more accurately.

Cynicism arises from experience of commercial transactions. It is a said of our Patron Philosopher Diogenes that he spent a day in Athens' market place looking unsuccessfully for an honest man. Shonks proliferate, suckers get caught, cynics sneer … life goes on. It's an easy step for a cynic to mistrust all human transactions particularly in the realms of the paranormal and pseudo science. To give the slightest credence to the pedlars of piffle is to ignore a lifetime of reality.

Many cynics are also super pessimists but that just happens to be a variation of a cynic's hope for the future. A cynic who is an optimist probably has not lived long enough to get the full rewards of the altruism of his fellows.

A cynic does not have to wait for evidence. He can immediately decide that any proposition is likely to be rubbish and get on with life. If against all previous experience something far fetched is shown to have some validity then an apology is easily given but trust me this requirement is rare.

So please lay off we cynics! We have a personal philosophy that is practical, stands the test of time and is usually an honest statement of what we feel. Cynics just have to accept their unpopularity within the general public.

A pogrom within Skeptic Inc to eliminate cynics and give the organisation a pretty face is liable to leave Skeptic Inc with a severely depleted membership. Cynicism is the seatbelt of life.

Keep looking

Yvonne Wutzke
Caringbah NSW

How refreshing to read Tory Shepherd "Skepticism and the Unexamined Life" (23:4). I would suggest that the image problem of Skepticism is a reflection of the image problem of science in general. I love the humour of debunking and hope we never give up on it — particularly debunking ourselves. However, I fear this does nothing to improve the image of science.

Oft have I wondered why seemingly intelligent people give their hard earned dollars to the alt-med practitioners in return for dubious and some-

times dangerous outcomes. Similarly, in my own profession (relationship and family counselling) I am concerned when clients tell of their expensive experiences with "new age" therapies. Skilled cognitive behaviour therapists produce excellent results in helping people manage the symptoms of human existence and this is well documented in the psychological literature.

One of my many hypotheses (untested of course!) of why people continue to pursue expensive and dangerous irrational practices is because of the very protective human emotion of fear of the unknown. As long as the scientific world keeps itself exclusive and insular then its findings will stay in the realm of the unknown and the "natural" world will be seen as the known and believed to be good and efficacious and nothing to fear at all.

Here's hoping we find more open ways to respectfully challenge the irrational beliefs we all formulate as we try to make sense of our complex world. I look forward to further articles in the 'Looking at Ourselves' series.

Oh to be irrational

Graham Millar.
Killarney Heights, NSW

Tory Shepherd's article: "Skepticism and the Unexplained Life" (*Letters,* 23:4) poses the proposition: 'So I think Skeptics need to understand more about why people believe what they do". But she offers no explanation of the way in which she understands some people believe what they do. Surely the answer is fundamental to our being able to accept people with a range of differing views.

Howard Gardner's Theory of Multiple Intelligences (*Frames of Mind: The Theory of Multiple Intelligences* by Howard Gardner: Basic Books; 10th edition (March 1993) ISBN: 0465025102) showed that far from being a single entity, intelligence, or perhaps better put as "understanding", is an amalgam of interpretations of the world around us. One person may be a brilliant mathematician, another a musician, another a linguist, another having such a high degree of interpersonal skills that they are a "born leader".

The same evolved brain has this broad range of skills, to a lesser or greater extent, in us all. Why is a person of a religious bent so inclined? The modern understanding is that they have a more highly activated part of the brain, or more amusingly put, G spot (as in God rather than Grafenberg), than the rest of us. Even logical, rational presentation of facts will not deter them from their religious path, because their particularly (I won't say "peculiarly") activated brain senses a god like presence in their lives. For them "God" is real!

This perhaps helps explain why a nobly intended organisation such as a Church, failing to move with the times, can in accordance with *Leviticus* 20:13 call for the execution of a homosexual because of that persons so-called depravity, regardless of their skills in society, such as those of an actor or a nun.

No doubt in our evolutionary history such a god-like presence has given great comfort to many in the dire circumstances in which they lived. Bearing in mind just how few generations are needed to bring about distinctive traits in a species, (compare a Great Dane with a Pekinese) one realises just how useful our malleable brain is in coping with the stresses of evolutionary life.

As Skeptics, understanding the 'degrees of irrationality' as we do, it is just a matter of putting our rational point of view; evolution will do the rest!

Clinging to belief

Raymond Smith
Kings Park NSW

I have been a "Skeptic" for as long as I can remember. The earliest recollection of this was at Kindergarten in Auburn North Public school in the year 1964. Mr Wade, the local Anglican minister, had the job of selling us on religion. I remember him talking of heaven, his description was one of Hilton hotels with free chocolates. He even had "props" I remember sitting on the mat, legs crossed and my little mind thinking this was a con job. My skeptism blossomed, and I have enjoyed the sanity this experience has filled my life with.

But these days, what amazes me most is the tightly held nature that makes people cling to openly irrational belief systems. By way of example: I have neighbours some doors down who are as strange as you get. We are very good friends, but to a Skeptic they are kind of like my own personal "Osborne family".

"She" believes in everything but the logical; visits psychics weekly, takes incredible amounts of unlabelled foul smelling naturopathic remedies, even gives them to her two small children. They all suffer from constant stomach illness — possibly because of these concoctions.

I have talked to her calmly and rationally about things she believes in. An example only today, was a television "John Edward"-style psychic. She believed this man to be very truthful and accurate, while I watched it with her and pointed out the more obvious examples of cold reading. But, for whatever reason, she was unable to comprehend this information. It was, I note, harder to spot cold reading when the continuity is interrupted by "after interviews" of the "individuals", re-cut to take place straight after each proclamation ushered by the psychic. It takes real concentration to follow it through.

But when you know what your looking for, it's as obvious as hell. I find association with people who have beliefs that cover the supernatural and have limited ability to even grasp the edges of today's science, tends to adversely affect my blood pressure. Last weekend, after talking about something to do with space exploration from the Sunday paper, her husband said to me, "What do you think? Did they actually ever really land on the moon"? I was just short of a stroke about then. How do you reply to people who can't comprehend the greatest technological miracle in the millennium, but can be-

lieve that someone's dead father is making the front porch light flicker as some kind of ethereal Morse code?

Going feral

Tony Trusler
Hawthorne Qld

As one who subscribes to both *the Skeptic* and *Sporting Shooter* (are there any others out there?), Sir Jim R Wallaby's piece on "panther" sightings ("Out of the Bag", 23:4) was of particular interest.

Most sporting shooters consider it their civic duty to make inroads into Australia's huge population of destructive feral cats. While the photos of shooters and their victims that are featured in each edition of *Sporting Shooter* may not be to everyone's taste, they do graphically demonstrate one important fact — feral cats grow very large indeed.

Sightings of feral cats, or wild dogs, are almost always going to be fleeting as they depart the scene very quickly when disturbed by man. A brief glimpse of one of these animals in the harsh light of the outback can easily lead to mistaken identification. Capturing "panthers" on film is always going to be difficult. The same goes for the yowie, the big foot and the abominable snowman — none of them seem to want to stay around long enough for proof of their existence to be verified!

The Australian bush has more than its fair share of feral animals ravaging native wild-life and vegetation. We have no need of imagined ones.

Mountains crawling with cats

Pamela Mawbey
Wahroonga NSW

In regard to the story "Panther or just a big cat?" in your last issue, it seems to be more than just one big cat, and a small one as well. When I worked as a journalist in the Hawkesbury in 2000, I heard descriptions of kill behaviour characteristic of the leopard, jaguar and puma. A couple of newly killed sheep were found with holes in their skulls made by long incisor teeth, the mark of a jaguar. Partly eaten goats found in trees and lots of missing dogs in areas where the "panther" had been sighted suggested a leopard. There was also said to have been a kill where the internal organs of the prey had been removed, a characteristic of the puma (a small cat). All of these species of cat can be black and are prized by collectors for this very reason. So-all you skeptics out there, he not only aware but beware.

Objective morality

Mark Newbrook
Wirral UK

Michael Lucht (23:4 pp 34-36) tries hard to deal with the problem of objectivism in morality (ethics). However, the two main problems with any objectivist account of morality remain.

(a) In what sense can statements of moral principles really be true or false (whether or not the truth or falsehood of each can ever be definitely known)? They are clearly not like scientific or other empirical (near-)truths, or like mathematical or logical truths. (The question of how people are persuaded to alter their views on these matters is important and not unconnected, but it is not the same question.)

(b) How can any combination of empirical truths (or any model of the world that can be assessed against reality), with no other premises, logically imply (or even suggest) any particular moral position? The idea that this can occur has been called a fallacy, but even if it is not a fallacy it is not at all clear that it is correct. (I stress that there are also major problems with subjectivist or cultural-relativist accounts of morality. Who will really accept the idea that it is only a subjective or culture-specific opinion that the Holocaust was evil? This is a major unresolved philosophical issue.)

Utilitarian morality

Gary Goldberg
Silver Spring, Maryland USA

I expected Michael Lucht's article on morality to lead into an endorsement, or at least a consideration of, utilitarianism, here meaning that morality (as enshrined in law) is based on practicality, that is, good order: you can't have a stable society if murder, robbery, rape, etc. is unpunished.

With further refinements over the centuries, we have come down to deciding matters on the order of what is or is not permitted in public, financial dealings, consumer activity, etc.

According to Marx

Kel Hamilton
Frankston VIC

In 23:3, Michael Lucht contributed an article entitled "Skepticism and Morality". In it he quotes from the *Communist Manifesto* :from each according to their ability, to each according to their needs" and adds the implication that this has been tried and found wanting.

Marx categorised past societies as Primitive Communism; Slavery; Feudalism; and Capitalism and suggested that in future societies would be classified as Socialist and finally Communist. He spent most of his time in developing an analysis of capitalism and said next to nothing about the implementation of socialism. Presumably future socialist governments would base themselves on policies emanating from the dictatorship of the proletariat and from dialectical materialism. Whether, say, in East Germany government by the Communist Party equated with the dictatorship of the proletariat is a moot point. The essence of dialectical materialism seems to be establishing reality through the interaction of contradictions. Establishing reality in fiscal and economic matters at any given time in any given

country is generally reckoned to be exceptionally difficult.

None of the leaders in any of the so-called communist governments ever claimed to have achieved a communist society. Mao Zedong suggested that China could so within a thousand years if all went to plan. When one examines the state of affairs in the planet's myriad nations in the first years of the 21st Century one certainly needs to be an optimist to believe that *homo sapiens* could ever aspire to a society where the State apparatus has withered away and each individual takes only what he needs and gives what he is able. On the other hand we really have made some progress over the last thousand years.

More precision

M Evered
Armidale, NSW

I have been reading *the Skeptic* for about one year now and happily support the principles of 'seeking evidence', 'challenging claims' and 'not believing everything we hear'. I have particularly appreciated articles discussing nutritional myths and debunking the 'psychic methods' of those who are out for monetary gain by cruelly exploiting people's hopes and fears. In the spirit of constructive criticism, however, I would like to share a few of my general impressions about the style and content of the journal.

Firstly, I feel there is a lack of precision and differentiation in many of the published articles. While it is stated to be 'a journal of fact and opinion' it is not always explicit whether an author is intending to present facts or opinions. Such widely different topics as email scams and the existence of a creator seem to be lumped into a single bundle. It seems to me that the claims about which we may be sceptical fall into a number of different categories. One obvious criterion for categorisation is whether a claim is demonstrably false. Such beliefs as water divination or magnetic healing can be straightforwardly investigated, whereas beliefs such as the existence of supernatural entities or the sufficiency of science in pursuing truth, cannot.

As an example of imprecision, I refer to an article (23:4) entitled 'Pure Magic – Fundamentalism and the Occult'. Brian Baxter seems to regard 'magic' and 'belief in the supernatural' as synonymous. My dictionary defines magic as 'the art of producing effects or controlling events by supernatural powers or by command of occult forces in nature'. While I certainly do not support all the views and statements of Rev Fred Nile, it must be said that nowhere does the article demonstrate that he claims to have supernatural powers which enable him to control events. Talking to God and asking him to act is not magic — it is just prayer. Now there may be many opinions about prayer, but I know of no dictionary which equates it to magic.

Secondly, I find the tone of the articles often to be arrogant and even insulting. While I can understand some anger toward charlatans, there is no place in a serious journal for mockery of those who sincerely hold differing opinions.

Finally, I regret the general lack of a critical discussion of the ideas presented in the articles. In matters of opinion it would be desirable to allow the presentation of a number of differing views in both articles and letters to the editor in order to promote discussion and foster understanding. It is in this spirit that I submit this letter (with apologies for its length!).

Guidelines for Writers

We welcome contributions to *Letters* from our readers on any topics that have been raised in *the Skeptic*, or on any other issues that might be of interest to their fellow readers.

We try to include as many letters as we can in each issue, though we reserve the right to edit them for reasons of length, repetition or relevance.

We tend to avoid letters that are simply iterations of dogmatic beliefs, be they religious, political, economic or equally contentious topics that are not readily amenable to reasoned discussion. We particularly avoid letters that are defamatory or are otherwise likely to cause us to be sued.

Letters should preferably be of a maximum of 500 words if possible; longer contributions may be offered as articles.

If possible, arcane and specific technical terms should be avoided in correspondence or, if unavoidable, should be explained in terms readily comprehensible to intelligent lay readers.

If possible, letters should be emailed, but printed correspondence is acceptable as long as they can be scanned without resort to special technology. Handwritten letters, if unavoidable, should be brief. Medical practitioners should avoid handwritten contributions under all circumstances.

Deadlines for each issue are:
Autumn: February 1
Winter: May 1
Spring: August 1
Summer: November 1
(or thereabouts in each case.)

Get a Bag!

We asked you to come up with slogans or illustrations to use on the cloth bags we propose to offer as gifts to resubscribers at the end of this year.

We discovered that Skeptics are a lot better with words than they are with images and that some have a lot more faith in our technological ability to reproduce the images than we have. We have reproduced those pictorial offerings the were scannable and will try to describe those which were not.

On the literary front, we asked for slogans that would be noticed by other shoppers with a passing glance. Below are those entries that could fit on a bag without making the print size vanishingly small.

You are invited to nominate your favourite from among those listed by emailing skeptics@bdsn.com.au or mailing us at PO Box 268 Roseville NSW 2069. Entries should be marked Bag Lady.

Slogans

- Australian Skeptics - Where its always Quack hunting season!
- ...because it ain't necessarily so!
- Because somebody has to teach common sense
- Be rational - be a Skeptic
- Challenge the Claims
- Common sense ain't so common
- Critical thinking - I recommend it!
- Debunk Bunkum
  Demand Proof
- Don't be Afraid to Ask
- Don't Believe, Think!
- Exercise your mind
- Hang out with Suspicious Characters
- **I think, therefore....**

  I am...

  a skeptic!
- Just Think!
- Let's be critical
- Occam's Razor cuts through the rubbish
- Practise critical thinking
- Reasoning minds minding reason
- Seek the Evidence
- Skeptical authorities warn that alternative medicine is a health hazard.
- Smile - Question - Keep Smiling
- Straight Talk about Bent Spoons
- The plural of anecdote is not evidence.
- The truth is out there.
  The X-Files are not!

Word pictures

A bottle labelled:

'Skeptic Spirit'

'100% Proof.'

'Warning: Evidence can be potent'

Rodin's " Thinker" in a slouch hat with text:

'Critical thinking - reason for the mind!'

A blazing torch with a subscript:
"Illuminate your mind"

And a number on the theme of a "road sign" showing a diagonal line across a circle, forbidding "Bullshit".

www.skeptics.com.au

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The *Great Skeptic CD²*

First the bad news. We all knew it had to come to an end sometime, and now that day is upon us — the *Great Skeptic CD*, that wonderful compilation of all issues of *the Skeptic* from 1981 to 2000 (plus much more) has ceased to be. We have sold out. (No, not our principles — the disc.)

Don't despair if you missed out, however, because the good news is that the *Great Skeptic CD ²* is about to go on sale (watch the web site). It contains not only all the text of the previous best seller, but another three years of *the Skeptic*, plus even more extra works, and it has been made even more user-friendly. (So friendly, in fact, that it will almost certainly wag its tail and lick your face.)

Ah, we hear you cry, *but do you expect me, having forked out $55 to buy CD ¹, to again cough up a similar sum to get this new and improved version, even if you are including a set of steak knives?*

No you don't — if you don't already have one it will still cost $55, but if you were one of those adventurous individuals who got in on the ground floor, then we will let you have the new improved *Great Skeptic CD ²* (with hexachlorophe enhancers and polarised theodolites) for **only $25**.

How will we know if you have the old version? We could ask you to send it back - but we'd rather you donate it to a local school or library - so we'll simply leave it to your conscience. Trusting Skeptics, aren't we?

And don't forget, you can still get the *Skeptics Water Divining* Video Tape for $25 and the DVD for $35 (and if you are a teacher ordering one for your school, they are Free).

Are you a Skeptic?

Subscribe or buy merchandise at our secure online store at www.skeptics.com.au

Australian Skeptics appeals to rational individuals of common sense, intelligence and with a social conscience, who are interested in actively pursuing the truth about claims of paranormal or pseudo-scientific phenomena and other irrational popular beliefs, from a responsible and scientific perspective. For more than twenty years it has established a national network of like-minded groups which, by investigation and the application of critical thinking, aims to help free our society of the results of fear bred by irrational thinking.

We seek the evidence.

We challenge the claims.

We don't believe everything we hear .

We encourage the public to adopt a critical attitude towards these claims.

Our quarterly journal, *the Skeptic* is the voice by which we have offered the public and the news media the opportunity to find out what science and reason have to say about paranormal and other irrational claims.

It conducts investigations and publicises the results.

It opposes the generally uncritical sensationalism presented by the popular media.

It draws attention to the possibility of natural and ordinary explanations of such phenomena.

Its findings are sometimes humorous, often sobering and always fascinating.

You can join our growing list of subscribers by subscribing to *the Skeptic*, using the form below.-

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