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Note: We regret that there will again be no Crossword in this issue.

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In the introduction to his recently published collection of essays, *Did Adam and Eve Have Navels?*, Martin Gardner discussed his involvement in debunking pseudoscience:

*I am aware of the difficulties involving what philosophers of science call the “demarcation problem” — the task of formulating sharp criteria for distinguishing good science from bad. Clearly no such criteria are precise. Pseudoscience is a fuzzy word that refers to a vague portion of a continuum on which there are no sharp boundaries.*

Starting at the far left of the spectrum there are ideas that all scientists consider preposterous; travel rightwards through ideas that are merely dubious; further along to those that are more respectable, until the right hand boundary is approached, where controversial, though as yet unproven, theories abound, some of which might well be true. Across that boundary lie the realms of well substantiated science.

Martin Gardner’s suggestion pretty well encapsulates the approach that Australian Skeptics takes to the collection of ideas that make up the fuzzy continuum encompassed by the term alternative medicine. On the right are modalities that might have something to offer in the treatment of certain illnesses or might improve patient wellbeing (and are close to well tested and accepted medicine), while on the left are claims and offers that any rational person would consider utterly preposterous, and which may well be highly dangerous.

**Legislative action (at last)**

We have been loud in our demands that health regulators take a serious look at the whole “altmed” spectrum and root out the dangerous, preposterous ideas. That is why we welcome the action of the NSW Minister for Health, Craig Knowles MP, in setting up an advisory committee to investigate and review the wilder claims made for dangerous gadgets and treatments, with the view to taking legislative action to banish them, finally, from the medical landscape.

At a press conference on November 8, the Minister announced the establishment of the committee under the chairmanship of one of Australia’s best known medical academics, Professor John Dwyer. John Dwyer, is Professor of Medicine at UNSW and an immunologist at Prince of Wales Hospital; he has had a most distinguished international career and is a recognised leader in his field. He would seem to be the ideal person to head such a committee.

Two Skeptics, Cheryl Freeman and Peter Bowditch, each with a long-standing involvement in the struggle to have alternative medicine held to the same standards of accountability as orthodox medicine, have been retained as advisors to the committee. In fact, at the press conference, every item the Minister used to illustrate the case, from electronic gadgets for which outlandish claims for diagnosis and cures have been made, to homoeopathic “vaccines” for such deadly ailments as meningococcal disease and hepatitis B, had been obtained by Cheryl Freeman and supplied to the Minister by Australian Skeptics.

**Purpose of the committee**

We should be clear about the purpose of this committee. It is not designed to regulate the entire “alternative” (sometimes called “complementary”) medicine industry (worthy an ideal as the Skeptics might regard that to be). Its purpose is described in the News Release from the Minister’s office:

*This is not a witch-hunt. Practitioners who have proven or tested products will not be shut down. However, we must stop vulnerable people from being ripped off with completely useless products or being exposed to harm from dangerous or potentially dangerous products or processes.*

These will include gadgets, often cobbled together from hobby electronic components, and labelled with names like “Rife”, “Hulda Clark”, “Mora”, “Listen”, “zappers”, colloidal silver generators, magnetic pads and the like. These are readily available and widely advertised in alternative publications and are targeted at extremely vulnerable people. (This whole sector is labelled by alternative proponents as “energy” or “bio-energy” or, more recently, “bio-cybernetic” medicine, as though the use of scientific sounding terms give it a scientific credibility it certainly does not warrant. You can call a duck an eagle, but it still quacks.) Also in the spotlight will be such worthless potions as homeopathic medicines...
vaccines. Added to these are so-called computer regulated tomography devices supposedly used to diagnose diseases including breast cancer, live blood cell analysis and other devices and treatments, for which there is no evidence to suggest that they might work as advertised. All are items for which claims are made that they will cure cancer, HIV AIDS, hepatitis, meningococcal disease and many others. (We have covered many of these in previous issues.)

In short, the committee will be looking at the more “preposterous” end of the market and seek to protect the vulnerable. Proponents of these devices and treatments will, at last, be required to substantiate their claims with evidence, rather than by the word-of-mouth, “nudge-nudge, wink-wink” process that is all too common in this industry. In other words, they will be expected to operate just as the manufacturers of genuine medicines and medical devices have to.

Action at last
Some of these dangerous claims have already come under the scrutiny of federal agencies. The TGA recently banned the sale of homeopathic “vaccines” and the ACCC, in association with state Fair Trading offices, has successfully prosecuted or has reached out of court settlements with a number of companies claiming, inter alia, the use of magnetic fields and colloidal silver suspended in water to cure AIDS and boost the immune system; magnets and magnetic devices as effective in treating headaches, back injuries, circulation problems, insomnia, arthritis and sprains; herbal products for curing colds overnight, and curing hangovers, morning sickness, and stomach ulcers, among many others.

Regulatory scrutiny has been a long time coming, but it is welcomed. It is encouraging that state and federal health regulation and consumer protection agencies are now working in cooperation. In the past it was far too commonly the case that these dangerous items slipped through the cracks as agencies denied responsibility for their control.

The NSW Health Minister will be calling on his colleagues in other states to follow his lead, and we can only encourage all Skeptics groups to urge their governments to do so. Tasmanian Skeptics has already made submissions to that state’s Health Minister and are commended for it.

Counter attack
It will come as no surprise to anyone who has had any involvement in investigating the altmed industry, that the announcement of the committee drew an almost instant, outraged response from sections of the industry. This is an industry that has both a large financial, and an even larger emotional, commitment to their quasi-religious faith in non-scientific quackery.

The use of harmless sounding words “supplements and complimentary therapies” is, again, typical. When publicly challenged to justify themselves, many altmed practitioners expound at length about “nutrition”, “life-style advice”, “massage”, dietary supplements” and any amount of other feel-good waffle. While none of these is likely to cure anything much, they will very possibly make a patient feel better, which is no bad thing. But they usually contain the same sort of advice that any competent medical practitioner will give a patient anyway. It’s not really medicine, but as it is probably good advice, it might therefore be accurately described as “complementary medicine”. (On the other hand, if a doctor tells a patient that her dress suits her, that could be more honestly, be named the “Anti-Vaccination Network” (we have yet to hear of a case where they have actually supported any vaccination) sent out a message to its email network that included the following nonsense: This is a genuine threat. ... If we are no longer able to use supplements and complimentary therapies, we will be left with no option but to use Western Medicine which has a record of causing 1 in 5 deaths every year. Please get involved. Please give generously.

Note the technique — get the Big Scare out (regardless of truth) and (like creation ‘scientists’, whom they resemble in more ways than one), never miss any opportunity to solicit donations. Note also the weasel words — “Western Medicine” is a meaningless phrase — there is no such thing, any more that there is Eastern (Northern or Southern) medicine; there is simply medicine which works, and if it doesn’t work it is clearly not medicine.

Like cultists of any kind, they can be expected to defend their beliefs by any means that comes to hand and it is instructive to see just how they set about doing it.

The first into the fray was the grossly misnamed Australian Vaccination Network (AVN). (See Peter Bowditch’s article on page 8, for a disturbing picture of how this outfit goes about its business of “informing the public.”) AVN which should, with more honesty, be named the “Anti-Vaccination Network” (we have yet to hear of a case where they have actually supported any vaccination) sent out a
Accountability

Much as the Skeptics might welcome a move in a direction demanding that claims made for alternative medicine be required to adhere to a standard of accountability, no lower, than that expected of orthodox medicine, that is not the purpose of this committee. It will, rather, be looking at claims of efficacy for which there is no supporting evidence and to protect the public against dangerous quackery. Anyone practising a form of complementary medicine and who can provide evidence that it actually works should have nothing to worry about.

AVN also broadcast a couple of highly amusing (and easily checkable) clangers. It described Cheryl Freeman as being the “president of the Sceptics Society” (Cheryl, while deeply admired and respected by Australian Skeptics, has never held office in our association) and claimed that “The Dwyer group is funded by Dick Smith”, which came as something of a surprise to Dick when we told him. So much for the research capacity of AVN.

Politics

Faced with the conundrum of what to do if required to provide evidence to substantiate their often highly exaggerated claims, the proponents of dubious techniques and technologies must have realised that vague new age claptrap about “natural”, “energies unknown to science”, and the like, would cut little ice with any scientifically literate investigating panel. To overcome this dilemma, they appear to have resorted to an obvious tactic — an appeal to “democratic rights”, ie use politics. (Yet another similarity with creationist tactics. It is amazing how those who know nothing about science seem to think scientific facts can be derived by a democratic process.)

Altmed networks are touting petitions opposing the committee in every “clinic”, health food shop and, sadly, some medical practitioners, they influence. They hope, no doubt, to scare politicians into opposing, or watering down, any legislation that might flow from a committee report.

Conspiracy

One standard line of attack used in this campaign is the old one of “orthodox medicine is a conspiracy between the medical profession and the multinational pharmaceutical companies”. This seeks to portray the altmed industry as the caring “little people”, offering low cost treatment and being bullied by Big Business — they just can’t afford to do the trials that would “prove” their techniques. That claim seems a trifle hollow in light of a recent survey conducted by Professor Alastair MacLennan of the Department of Obstetrics & Gynaecology at the University of Adelaide. It found that in 2000 Australians spent an estimated $2.3 billion on alternative medicines and therapies, four times as much as on prescribed pharmaceuticals. So, who is the Big Business in this equation?

Conducting a small test of our own, we went to a local pharmacy to purchase a packet of soluble aspirin (surely one of the most useful and effective drugs commonly available). While there we asked the pharmacist if there were any “natural” alternatives available and were assured there were. The aspirin from the money-grubbing multinational cost $4.40 for 42 tablets; the low-cost natural alternative — $14.20 for 30.

Conclusion

In the wash-up, all that Australian Skeptics is seeking is that orthodox medical practice and alternative practice be required to play by the same rules. That the alternative industry, one claiming to offer similar professional services to those offered by the medical profession, not have a privileged position, with lower standards of compliance and accountability. In Australia we do not allow amateur plumbers or electricians to ply their trades for hire. Should we expect any less from people who offer health services?

Barry Williams
Around the Traps

Young Science

One of the worthy causes sponsored by Australian Skeptics in NSW is the Young Scientist of the Year awards, organised by the NSW Science Teachers Assn. In this, kids in all classes from K-12 are awarded with prizes for work done in a scientific area, culminating in the selection of four students to attend an international science festival in the USA and one to be Young Scientist of the Year.

During the awards, the students are entertained by a presentation from another sponsor, Dr Karl Kruszelnicki, Julius Sumner Miller Fellow at the University of Sydney, author of popular science books and media presenter.

One of the Skeptics usually gets to make a brief speech and to hand out some of the awards. It is a most satisfying way of spending our money.

The work displayed is quite remarkable from such young researchers, and it stands as a tribute to some very dedicated science teachers. However, there is one apparent trend that should concern all supporters of state education. Although private schools educate only some 20-25% of the children in NSW, in 2002 the number of awards that went to private school students outstripped those to state school students by a margin of 2:1.

Adieu, so long and good bye

We are pathetically grateful to the esteemed Treasurer of the Skeptics, Richard Lead, for this communication which brought back many happy memories.

While searching the web site of the Australian Securities and Investments Commission recently (as one does) I stumbled upon a company which was deregistered in June 2002. The company was incorporated in January 1995. It was a public company limited by guarantee, which means it had at least five members. And the company’s name? The Anti-Sceptic Society. Perhaps the editor can enlighten us on the hope, optimism, failure, despair, and finally, defeat experienced by this company in its short and (to me at least) invisible existence.

We first heard from The Anti-Sceptic Society (TA-SS) in the mid-1990s, when we received a missive on its letterhead, signed by a Mr James Mann of Altona, Vic. Mr Mann seemed a trifle piqued at our temerity in challenging all sorts of unsubstantiated beliefs and informed us that he had established TA-SS and would “shortly” publish a journal, The Anti-Skeptic, to set matters straight and to expose our chicanery. Considerable correspondence followed, establishing only one thing for certain and that was Mr Mann’s complete lack of a sense of humour.

Steve Roberts from the VicSkeps even attempted to become a subscriber to The Anti-Skeptic, offering to pay the suggested subscription price of $25. Fortunately for Steve his offer was not accepted, as he’d have had a long wait (seven years and counting) to receive his first issue.

We heard from Mr Mann again some time later, when he applied for a number of “research grants” from the Skeptics Trust for a variety of outlandish projects. In support he had photocopied a number of entire books and had sent copies of all this to various media outlets, to, as he said “keep the Skeptics honest”. Being honest folk, we felt it our duty to inform the copyright holders of the various books...
of Mr Mann’s actions (and he didn’t receive any grants).

We haven’t heard from him since and now his society has been deregistered. If it’s any comfort to Mr Mann, his two main antagonists from the Skeptics, Steve Roberts and the Editor of this journal, were recently honoured by being awarded Honorary Life Membership of Australian Skeptics. Strange are the ways of fate.

**Who’d have thought it?**

Shortly after our conference, newly elevated Life Member, Steve Roberts, advised that the Atheist Society planned to discuss the burning question “Caravaggio’s Iconography: Proto-Kierkegaardian or Egalitarian Crypto-Heresy?”.

This question has clearly taxed the finest minds since, well, Kierkegaard’s time, and we decided to take the initiative and resolve the issue once and for all in the exemplary democratic fashion, by means of a vote.

Those who believe that Caravaggio’s Iconography was Proto-Kierkegaardian: 17

Those who believe that Caravaggio’s Iconography was an Egalitarian Crypto-Heresy: 26

Those who voted for both: 4

Abstentions: 87

**Conclusion:** Caravaggio defeated Kierkegaard on the first innings.

**We don’t like to gloat...**

Meanwhile on a related front, perhaps the Atheist Society might like to consider this puzzler.

In the Perth Test the Poms had a Tudor and a Stewart in their team. Would they have done better if they had selected a Plantagenet, a Saxe-Coburg-Gotha and a Windsor as well? (Is it possible that Uri Geller is a closet supporter of the England cricket team?)

**Atlantis found!**

Every once in a while some “intrepid researcher” discovers a series of rocks in the ocean with a discernable pattern to them and immediately proclaims that they have found evidence for Atlantis or some other “long lost” civilisation. “Straight lines are not natural” is the usual explanation for their enthusiasm.

Well we can now reveal that Atlantis has been discovered on the Tasman Peninsula, Tasmania. This photo of the Tessellated Pavement was taken by subscriber, Ros Fekitoa on a recent visit to the Apple Isle. She expects to have a best-selling book and TV series in the works any day now.

**Geological formation or remains of an Atlantean public dunny?**

**Just the thing**

Our old mate, George Richards, Editor of Column 8 (SMH) brought this unrivalled business opportunity to our attention. The ad appeared in the Herald in November for any interested readers.

**Sceptic Tank Pumping**

North Coast N.S.W. Family business

Tankers, excellent condition. Figures available, owners retiring. Reasonable offers considered. Ph. 4924 9675 Ext. 256 050

**Scams busted**

Thanks to subscriber, John Paterson, who spotted the following item in the 4 October Melbourne’s Herald Sun:

Two clairvoyants promising fortune and happiness for $80 have been shut down and forced to refund $42,000. Consumer Affairs Minister Christine Campbell said their offices had been closed in Victoria and Queensland. Consumer Affairs Victoria stopped hundreds of credit card transactions and intercepted 824 letters carrying payments totalling $10,000 to clairvoyants Marie France and Maria Duval. Ms France and Ms Duval, operating as Health Tips Ltd, promised success for about $80, a spokeswoman said.

John welcomes the news, but is curious as to why Consumer Affairs acted now. When he talked to them about Maria Duval a couple of years back it seemed like they didn’t want to know.

We too welcome the news, but subscriber, Rose Pandzic, tells us she recently received a very similar offer from yet another purportedly French female psychic, one Eva du Maurier. (Why don’t they invent Italian or Japanese psychics to front their scams?)

**On a serious note**

Subscribers might remember stories earlier this year about a man who had been charged in Queensland with making threats against Australian Skeptics and Dick Smith Foods.

A court has found that the accused was unsound of mind at the time of the alleged offences. He has been ordered to take treatment and a non-contact provision was made that he not knowingly attempt to contact any employee of Australian Skeptics Inc, nor any organisation operated by Dick Smith, or any of their employees.

This was a distressing time for us, we are pleased at the result and hope that the man can regain his health under treatment.
On the page in my Millennium Project web site devoted to the anti-vaccination liars, I say that “a special place should be reserved in Hell for people who want to kill or maim children by preventing them from receiving vaccinations”. On Thursday, October 24, Richard Saunders and I attended a seminar organised by the Australian Vaccination Network, and I came away thinking that not only has that special place been reserved for them, but that they have already moved in.

Ridicule

The night started by ridiculing the medical experts who had been invited to speak in favour of vaccination but didn’t turn up. I am not sure when they would have been able to say anything, as there were only two-and-a-half hours available for the entire program and there were six anti-vaccination speakers already scheduled, plus housekeeping, introductions and a question session. Professor John Dwyer from the University of New South Wales wrote a declining letter which suggested that vaccination might just have been the most significant advance ever in medical science. This got a good laugh when it was read out.

The content of the speeches was much as I had expected, particularly as I knew the speakers. The first speaker’s current obsession is meningococcal disease, and she gave us the usual claptrap about how it is not a problem (only six deaths so far this year in New South Wales) and how the vaccine that the government is going to use has not been tested. The second speaker was a medical doctor who believes that doctors kill people and that children should be allowed to eat dirt (he was pleased that his daughter had picked up a dummy in the street and had put it in her mouth). He also provided a fraudulent interpretation of some Australian disease statistics. The third speaker was also a medical doctor, although she runs a woo-woo clinic rather than a conventional general practice like the previous speaker. She told us all about leaky guts and autism. (In a bizarre example of coincidence, I had to go to the dentist the next day and I found that my dentist’s office is two doors away from this quack’s place. The dentist wondered why I was gagging even before I got in the chair.)

The fourth speaker was yet another medical doctor — the infamous Archie Kalokerinos. Dr Kalokerinos told us that massive doses of vitamin C would cure just about every ailment, and that vaccination was a deliberate process of genocide carried out under the auspices of the World Health Organization and the Save the Children Fund. He went on to say that these two groups “put Hitler and Stalin in the shade” when it came to deliberate and intentional mass killings. He bases his claims on the idea that needles are reused in order to deliberately spread AIDS. Facts are strangers to anti-vaccinators, which is why he didn’t bother to mention that UNICEF (who supply about 400 million vaccination kits a year) haven’t issued a reusable syringe since January 2001, and the total abolition of the practice (expected...
in 2003) is just about top of the list in the WHO’s vaccine safety program.

False report

A report of the seminar put out the next day by the President of the Australian Vaccination Network included the words:

One strange thing is that Ratbags was there. He sat in the front row with his arms folded across his belly the whole time and he had a few of the rat-baguettes with him too (sort of like the mouseketeers only evil). They waited until Archie Kalokerinos had finished speaking (he was the last doctor to speak) and then, they all got up and walked out without hearing the final two speakers. I guess they figures that we non-doctors couldn’t possibly say anything worth hearing anyway?

Facts being what they are, the truth is that I was in about the twelfth row (next to a lady in a face mask who was warning everyone about the dangers of chemtrails), and the one person who came with me asked one of the questions in the Q&A at the end of the night. I don’t know who the people were who left after Dr Kalokerinos finished his rant, but perhaps they were offended by his belittling of the Holocaust or maybe they just had sensitive stomachs and wanted to get out before vomiting.

I published a report of the night on my web site and in several Internet forums where the anti-vaccinators hang out, and my comments about this “sitting in the front and leaving early” statement produced an interesting result. I was initially attacked for being egotistical and expecting everyone to know who I was. I replied that my comment was really about the bizarre leap of non-logic that took two isolated facts — I was known to have been in the room (I had signed a list that had been passed around) and someone left early — and from them had derived the conclusion that I was the person who had left. Someone then told me that she had recognised me on the night (she had been seated right behind me) and had told the person who made the “he left early” statement about me. This was supposed to make things better, but what it told me was that the person who announced the next day that I had been sitting in the front row had known at the time that this was not me. Telling people that it was me was not a case of very poor inference creation but a deliberately untrue statement. It is what the rest us call “lying”. Why was I not surprised?

The fifth speaker announced the alarming news that the makers of the vaccine to be used in the government’s meningococcal vaccination campaign had been given special permission to omit some things from the bottle labels. The manufacturer of this particular vaccine was not the same as the one that was selling untested vaccines, as reported by the first speaker. (A third company has applied to be able to supply some of the vaccine doses needed in 2003. I would assume that an appropriate complaint will be fabricated as soon as approval is announced.) The speaker also warned us of the dangers of mercury in vaccines which no longer have mercury in them. Still, what are facts when there are vaccines to be stopped?

This speaker also displayed a comic strip by murderer Alan Yurko, which tested even my gag reflex. (Alan Yurko is in prison for life in Florida, convicted of first degree, premeditated murder for beating a ten-week-old child to death. He has been adopted by the anti-vaccinators because they believe that they can use Shaken Baby Syndrome as another vaccine threat. Yurko has been officially declared a hero by the International Chiropractors Association (yes, they actually used the word “hero”), and members of several anti-vaccine mailing lists were asked to declare 29 November a “Yurko Day of Prayer”. Nobody was asked to pray for the boy he killed, but as one of them said to me “the child is dead, there is no reason to pray for him.”)

Homeopathic vaccines

The final speaker was a herbalist and naturopath who told us about witchcraft and voodoo potions. She mentioned homeopathic alternatives to vaccination, as if such things really existed. A question session followed, and Richard asked a question about homeopathic vaccines which produced an interesting result. The woo-woo medical doctor jumped in to answer, and what she said was almost rational. She said that homeopathy had nothing to do with vaccination and that these preparations couldn’t be expected to offer much protection. She even agreed that it was good that someone had taken action over obviously false claims. While she was saying this, the body language of the herbalist who had been very recently telling us how good these things were suggested that she was very unhappy with what she was hearing. Solidarity, however, prevented her from saying anything. Apparently, Richard’s question caused alarm bells to ring (his was the only real question, the rest were of the “Can I agree with you?” variety), but when the organising committee were told by the person sitting behind us that he had been with me everything became clear to them.

I fully expected to be accosted by a three-headed dog when we tried to leave at the end of the night, but Cerberus was nowhere in sight. We sought relief and sanctuary in the nearby Illawarra Catholic Club, where we were able to get a couple of nerve-calming beers. Richard tried to put a dollar in a poker machine but it kept giving him his money back. I don’t know whether this was because the place has rules against taking gambling money from atheists, but I suspect that the ultimate boss of the place had decided that we had suffered enough for one night and wanted to spare us from placing losing wagers.

My mention of the club was another matter which cause much discussion in anti-vaccination circles when I issued my story about the night. (Nobody wanted to discuss anything substantive with me, just where I was sitting and where I had a drink afterwards.) The club comments ranged from someone who wondered why an atheist would talk about Hell, to someone who thought that the $5 we spent on two beers would have been better spent saving some children somewhere, to someone who tried to turn the issue into a discussion of paedophile priests (the Catholic Club, being
a sort of mini-casino, probably has little to do with the theological or administration aspects of the church). Someone simply commented that the fact that I was a Catholic explained every-thing!

It was tragic to sit in that hall with about 350 people, many of them with small children or obviously expecting to have small children shortly, and watch those people being lied to about health risks for their children. We had a health scare in Sydney a little while back when some infectious organisms were found in the water supply, but the threat to public health from a lessening of vaccination rates is far greater than anything that cryptosporidium or giardia can offer. I'm just old enough to remember polio (which will be eradicated forever from the world in the next two or three years), and my children have not had to face measles or mumps or diptheria or pertussis or any other of the diseases which can so easily and safely be prevented by vaccination. The people on stage that night would have us back in a time where these were daily threats. With today's air travel, nowhere is more than twenty-four hours from anywhere else, so an unvaccinated population is under constant threat of infection and even epidemic.

Exposing the big lie
Among the lies told by the anti-vaccinators is that they just want to see safe vaccines, that they are not opposed to vaccines per se, that they just want to see parents making informed choices. I am writing this on World AIDS Day which is intended to focus the world's attention on a disease which has 15,000 new infections every day of the year from measles, a vaccine preventable disease, but I have been told that these children do not matter, and one of the speakers at Hurstville is on record as saying that no vaccine against measles was ever needed because the disease is "benign".

As Skeptics, we should all try to be objective, to seek the evidence. I admit that I went to that meeting at Hurstville with preconceived opinions. Nothing I saw or heard on that night did anything other than to reinforce my opinion that the anti-vaccinators are the most perverted and dangerous of all the anti-medicine campaigners. They defy logic, they defy science, they ignore evidence. It is like some bizarre religious cult, but one whose objective is a return to the pestilence and death of the middle ages. I've read about those times, and I don't want my children, or anyone else's, to live there.

How many people do those doctors kill?

On another issue, the proponents of quackery and medical fraud love to tell us about how many people are killed by doctors each year. In the opposition to the NSW anti-quackery committee, the number of iatrogenic deaths in Australia has been mentioned several times in order to make the point that doctors should clean up their own act before trying to do anything about charlatans and pretend doctors. Not only has it been mentioned several times, but it has several values. The ones quoted so far are 19,000, 18,000, 14,000 and 10,000. I have done some investigating to find out where these widely-varying numbers have come from. You will have to pay attention carefully here, but it will be worth the effort.

The figure of 19,000 could possibly be a mistake, as it was only mentioned once and the same person also said 18,000 somewhere else, so we don't have to worry about that one any more. The 18,000 apparently comes from a 1995 study of hospital deaths in two states of Australia. This report is not available online, but I hope to acquire a copy in the next few days. The author of that report published another report in 2001 which says that deaths may be as high as 10,000, so it looks like he has rethought his previous research. The 2001 report (which says 10,000 maximum) is cited by several people who mention the number 14,000, although they never provide an actual reference for the paper so anyone can check. They also say "14,000 preventable deaths" when the paper only talks about adverse events and quite clearly says that not all of them were preventable. I am never surprised by quacks lying or acting on the assumption that their readers have no ability to check facts.

The real mystery is the 14,000 number. Where did it come from? I first heard it before the 2001 report was published, when someone cited that report as if it existed (people knew that it was coming). The answer is that the original 1995 study, which apparently came up with an estimate of 18,000 iatrogenic deaths per year, involved an examination of 14,000 patient records. So, in the minds of the quacks, 14,000 records of adverse events became 14,000 preventable deaths, despite the fact that the author said 18,000 on one occasion and 10,000 on another. Simple, isn't it?

By the way, there were 128,291 deaths from all causes combined in Australia in 2000 (the last year for which figures are available — the 2001 statistics will be released in about two weeks). The likelihood that doctors are killing, through negligence or error, half as many people as die from all cancers combined or 150% as many as die of stroke is ludicrous. Whatever it is, it is too high, but it certainly isn't 18,000.
Many worthy contenders were nominated for the honour of being the 2002 winner of the nation’s least sought-after trophy, the Australian Skeptics Bent Spoon Award, presented annually to the perpetrator of the most preposterous piece of pseudoscientific or paranormal piffle.

Several, though worthy of condemnation, were considered too localised to have a universal lack-of-appeal. There remains a distressing tendency for many media outlets to give uncritical publicity to paranormal claims and for institutions of learning to offer courses in vacuous New Age beliefs.

Five nominees were considered by the judging panel, drawn from the officers of the various Skeptics groups attending the annual convention, to be worthy of inclusion in the list of finalists. These included a co-nomination of Arena TV (a pay channel) and Channel 10 for the airing of the appalling Crossing Over with John Edward, which touts the abilities of the eponymous host to converse with dead folk, but which really shows how a skill at cold reading can take advantage of vulnerable grieving people. Channel 10 received another nomination for screening the risible Did We Land On The Moon? pseudo-documentary. The news media in general were considered to have given far too much uncritical publicity to the “Unique Water” story, while (sadly) ABCTV’s Catalyst was nominated for three stories that lacked the rigor expected of a science programme.

After much consideration, one contender won the universal support of the judging panel. While many alternative medicine companies came into contention with their promotion of homeopathic potions for very serious ailments such as meningococcal disease, hepatitis (in its various manifestations), malaria, smallpox, et al, most of them relied on innuendo and word-of-mouth to promote their worthless nostrums. One manufacturer, however, came right out and labelled its potion as a “vaccine” and was thereby judged as the most worthy recipient.

Gentle Heal Pty Ltd, of Seven Hills, NSW, sold a Skeptic (by mail) bottles labelled as “Meningococcal Vaccine” and “Hepatitis C Vaccine” among others. These “vaccines”, based on an entirely unproven and unscientific technique, were labelled with the notation “200C” which means, in homeopath-speak, that any active ingredient has been diluted by a factor of 10^{-400}, ie 1 followed by 400 zeros. (See also the Letter from Dr David Maddison elsewhere in this issue to appreciate just how ludicrous this claim is.)

The very real danger of such potions is not that they have any inherent capacity to cause harm (assuming that normal hygiene precautions are observed in their preparation) for they usually consist of water with a small amount of alcohol, but that they impart a false sense of security to those who rely on them for protection. It’s not that they will do harm, it’s simply that they won’t do anything at all.

While Gentle Heal is the nominated winner, we have many similar potions from many other manufacturers, making similar claims for efficacy, albeit couched in euphemism and equivocal language, and all of them deserve to be treated with equal suspicion.

One benefit that has already accrued from the exposure of these pseudo-vaccines and of our representations to the authorities is that the Therapeutic Goods Administration (TGA) has now banned them from sale.
Skeptic of the Year

The second award announced at the Skeptics Convention in Melbourne, afforded all of the judges a great deal of pleasure. The Skeptic of the Year accolade is awarded to a person, not an official Skeptic, who has done sterling service in promoting the cause of critical thinking and rational scientific analysis of what is going on in the world.

This year our winner was unanimously acknowledged by the entire judging panel as a most worthy recipient.

Dr Paul Willis is a palaeontologist by profession and a science broadcaster by choice. Working for the ABC Science Unit, Paul appears regularly on Catalyst (ABCTV), the Science Show (Radio National) and on the ABC web site. He edits the Correx Archives, a selection of skeptical short pieces on odd beliefs and claims, used by all ABC networks, and he regularly co-hosts the Science in the Pub series. He has contributed articles to the Skeptic on creationist misrepresentation of issues in his professional field, and is uncompromising in his support of a critical and skeptical approach to pseudoscientific and paranormal claims. He is also our youngest ever Skeptic of the Year.

Convenor’s Post-mortem

Finally, after months of planning and organising, convention sub-committee meetings, endless phone calls, e-mails and lists of tasks to be done and details to be attended to, it’s finally over, and what a convention it was! They say hindsight is an exact science involving 20/20 vision, and in this case hindsight indicates that it was all well worth the effort. A jolly good time was had by all (well, by most of us, anyway).

A special thank you to those Victorian committee members who worked so hard to make this event the success it was, not only in the months leading up to it, but also during the convention itself, and who missed out on a lot of the fun because of their selfless and dedicated work during the weekend. I’d especially like to single out sub-committee members Ken Greatorex, who worked tirelessly churning out press releases and making name-tags and lunch vouchers, and Kathy Butler, who looked after all the catering behind the scenes, without whose contributions we could not have got the show rolling. I also wish to thank Peter Hogan, Steve Roberts, Chris Short and Greg Keogh, our assiduous Webmeister, who made large and valuable contributions over the weekend. Thanks a million, guys (and doll).

The official proceedings kicked off on the Friday evening with the annual National Branch Officers’ Dinner and Meeting held at the motel in Carlton where the overseas and interstate invited speakers were housed for the weekend. The meeting was attended by committee members from all states who were in Melbourne for the convention. It was at this meeting that the crucial decisions were made on who would be honoured with the Skeptic of the Year Award, and who would be dis-
honoured with the Bent Spoon Award.

When selecting the menu for the dinner, I was rather intrigued to see that one menu included an optional first course of “potato & leak (sic) soup”. I wondered what the chef’s secret ingredient would be for this exotic-sounding dish, and whether its preparation involved “straining the potatoes”. Tempted as I was, I had second thoughts and settled on “roast tomato & fresh basil soup” instead. (I wonder if they also do a “ham & pee soup”?)

The best-laid plans of mice, men and women sometimes come unstuck, and so it was with the convention. The first hiccup occurred when I was informed by Professor Ian Plimer a week before the event that he might not be able to attend and give his presentation. He was in the UK on academic business, and because of industrial action, he had been unable to secure a seat on a flight that would get him back to Melbourne in time. We had to rearrange some sessions to fill the gap.

The other mishap occurred when the computer projection equipment malfunctioned during Professor Alan Trounson’s session, and he had to complete his talk without the aid of his slide presentation. Subsequent sessions had to be relocated to an alternative lecture theatre with working AV equipment. During the previous weeks I had carefully monitored the list of registrants looking for the name Murphy, hoping he would not attend the convention. There were five “Kelly”s, but I wasn’t worried about them. However Murphy turned up unannounced, unregistered and unpaid, hiding in the projection room!

One happy highlight of the weekend was Barry Williams’ 64th birthday on Sunday. Not being a woman, Bazza wasn’t shy about revealing his age, and the formal proceedings were interrupted with two separate celebrations. One involved a rendition of the Beatles’ hit song When I’m Sixty-four by Alynda Brown and Richard Saunders, with Alynda making good use of the piano fortuitously located in the alternative lecture theatre. The whole room joined in to sing the lyrics. The other involved a chocolate birthday cake with a musical candle that played Happy Birthday. What better way for Australia’s only paid full-time Skeptic to celebrate his birthday?

To fit in all the speakers who had accepted invitations to give talks, and to group appropriate presentations into compatible sessions, arranging the programme involved some delicate balancing and juggling acts and insertion of a parallel session on water divining on Sunday morning. This process produced one serendipitous juxtaposition of talks that, at the time, seemed to be a mixed bag session — visitor from India, Narendra Nayak’s, lecture/demonstration on Indian “godmen” and their so-called miracles, including changing water into honey (not red wine, much to Richard Lead’s disappointment), followed by a real-life “man of God”, the Reverend Tim Costello, who didn’t attempt any religious miracles. He’s too busy trying to perform the political miracle of convincing state governments to give up their gambling revenue junkie habits. Tim gave a very interesting, informative and revealing talk on the social impact of gambling in Australia. His comments seemed to echo my own definition of gambling: voluntary taxation for the mathematically impaired (and for those who can least afford it).

One of the “godman miracles” demonstrated by Narendra Nayak involved a volunteer transferring a flaming chunk of camphor from one hand to the other, then placing it on their tongue, closing their mouth and extinguishing the flame. In India, this procedure is used allegedly to tell whether a person showing signs of disturbed
behaviour is possessed by an evil spirit or is mentally ill. The volunteer in this case was Bob Nixon, our intrepid Chief Investigator, but Narendra declined to reveal his diagnosis in Bob’s case.

In another “miracle”, a small flaming kerosene-soaked torch was passed up and down the bare arms of several volunteers, to demonstrate that a moving flame does not inflict burns. Colin Keay showed how ardent were the flames of his skeptical enthusiasm when the hair on his right arm caught fire and became singed. Narendra quickly extinguished the fire, and Colin appeared unharmed and none the worse for the experience. Colin, we’ll never query your devotion to the cause again!

For yet another demonstration, Narendra called for a young volunteer. The only really young person in the room was too timid to come forward, perhaps fearing that the experiment would involve setting her hair on fire, or worse. After repeated requests for a young volunteer, Barry Williams offered himself for immolation on the altar of Skepticism. This prompted a few questions to spring to mind: Is Bazza eternally youthful, despite his Santa looks, the long white beard and walking stick? Is he a closet drinker of that “Elixir of Youth”, the magic “Unique Water” marketed by one of the runners-up for the Bent Spoon Award? Is he just terminally deluded, like the water diviners? Or is he the latest incarnation of Count St Germain? (The answer is that he’s a publicity-seeking ham. Ed)

Another happy juxtaposition of presentations emerged from the rescheduling necessitated by the cancellation of Ian Plimer’s talk. Steve Roberts’ talk on the 2001-2 Mitta Muster water divining tests followed immediately after Paul Willis’s talk on the evolution of birds from dinosaurs. Paul had used as a prop a poor unfortunate, deceased and cremated avian creature (ie, a roast chook) to demonstrate the evolutionary evidence that could be gleaned from the chicken bones. The sight and aroma of the carcass left sitting on the bench from the previous talk was all too much for Steve, who had apparently been working so hard all day that he had missed lunch. Unable to contain his hunger, he proceeded to devour the earthly remains of the said departed dinosaur descendant during his talk. “Waste not, want not”, my late father used to say. (Somebody else said “Taste makes waist”, but I can’t remember who.)

On Saturday afternoon, Paul Willis was named Australian Skeptic of the Year, while Barry Williams and Steve Roberts were honoured with life memberships of Australian Skeptics, in recognition of their considerable contributions, over many years, to the organisation and the skeptical cause. Hearty congratulations to both of you for this well-earned distinction.

The convention dinner on Saturday night was made especially enjoyable and entertaining by a magic performance provided by the two Sydney magicians, Peter Rodgers and Steve Walker.

It’s now the morning after the weekend before, and I’ve checked my kitchen calendar to see if there was anything I had to do today. The only entry said “Have overdue nervous breakdown.” Monday is bargain day at the art-house cinemas in Melbourne, so I’ve decided to cancel that appointment and go the movies instead.
A brief overview of the papers presented at the convention, some of which are published in this issue and other of which will follow in later issues.

Roland Seidel

Sucker Bets
(See paper in this issue)

Dr Valerie Yule

The Psychology of Gambling
Dr Yule challenged us to think carefully about what we could do as a society to prevent excessive gambling. There are many aspects that attract people to gambling, for example, the temptation of reward, the fantasy of winning, the habit, illusions that they are special and not wanting to miss out on the chance to win. She explained that gambling is the best hope that many poor people have to improve their situation, and outlined a number of strategies to help people overcome the need to gamble.

Paul Rylance

Gamblers' Superstitions and Reality
(See paper in this issue).

Narendra Nayak

Being a Skeptic in India and Confronting India’s Godmen
Narendra Nayak described some of the tricks that people get up to in India and the approaches that Indian Rationalists are taking to debunk them. He discussed how Sai Baba and other gurus operate and showed video clips of both gurus and their critics.

Narendra entertained us with audience participation. He demonstrated how tricks with fire can leave the user unharmed, turned water into honey and caused newspaper to spontaneously combust. He travels around India to show people that these tricks can be performed by anyone; all they need is the knowledge of how to do it.

Prof Alan Trounson

Stem Cells: No more cloning needed
Professor Trounson explained the benefits of therapeutic stem cell research. When a skin cell or mammary cell is used for cloning, it is impossible to eradicate the signature of its origin. Another (and safer) process, using excess embryos that the parents have decided not to use, takes cells from the embryo and cultivates them to form a colony. The third process can be undertaken with adult stem cells and it has not yet been decided which of the latter two processes is the more effective. However, groundbreaking research is being undertaken, eg, for burns victims, tissue matrices have been developed that allow regeneration of the whole dermis (skin). Similar techniques are also used for muscle repair and for generating blood vessels for bypass surgery.

On the current debate in federal parliament over whether embryonic stem cell research should continue, Alan said that the politicians have made an effort to be well informed and he is optimistic that despite the current controversy, this type of medical research will continue.

Vicki Moss is a member of Canberra Skeptics

Varendra shows Lynne Kelly a hot trick.
**Convention Report**

**Dr Paul Willis**

*How to confuse a creationist with a roast chook*

With the aid of a freshly roasted chook, Skeptic of the Year, Paul Willis explained how dinosaurs evolved, demonstrating the anatomical similarities between birds and dinosaurs.

**Steve Roberts**

*Mitta Mitta Muster*

Steve Roberts gave a brief description of the 2002 Mitta Mitta Muster Water Divining Challenge. He went on to explain how a graph of the results of the tests followed very closely a normal distribution curve of chance results.

A fascinating aspect of the 2002 challenge was that eight of the contestants could detect an underground stream yet all eight streams were running in different directions.

Richard Saunders showed a video he had produced of the 2002 challenge. The video is a must for those who are curious about what makes a committed water diviner tick. The sound track on the tape, which let many of the diviners speak for themselves, was excellent. It will shortly be available through the Skeptics Online Store.

**Roman Kozlovski & John Minnis**

*Punting Systems*

Roman Kozlovski said that there is no reason why, with careful research, anyone should loose significant amounts from punting on horses, warning that his system allows him to make a small profit. However, to make a living, one would need hundreds of thousands of dollars as a 'bank', and that such an amount could be better spent on superannuation.

John Minnis said that for the average person, betting on horse racing is likely to gain better profits than at a casino. John's advice was that discipline is paramount, and that people should understand the risks they are taking and know their personal financial comfort zone.

He warned of Gold Coast based companies offering high returns for little work, who target retirees and people with little knowledge of racing. These often close down when they make huge profits and open up again later in a new name.

**Nick Renton**

*Risk and Reward in the Business World*

Nick Renton gave a very informative talk which included some valuable advice on investing on the stock market. This is not equivalent to gambling because profit distribution is a secondary activity of companies.
Good management aims to put profits to good use and in the process create employment.

Nick spoke about the risks that businesses run: competition; changed local circumstances; rent increases; legislative changes, etc, all of which have an effect on share prices. His advice when buying shares was to consider your needs in deciding what type of shares to buy; a young person with forty years to build an investment will have different needs from a seventy-year-old who needs an income from the investment.

Ray Crossley & Bob Nixon

Digging the dirt on dowsing

Ray Crossley was President of the Dowsing Society of Victoria for some years. He spoke at length on his beliefs that throughout history, individuals have had powers of the brain that go beyond scientific explanation. He started thinking about this some years ago after he had a near-death experience, which he described.

As a Skeptic, Bob Nixon got involved some years ago with the Dowsing Society of Victoria. He talked about how most of the dowers he has met genuinely believe in what they can do. However, when confronted with the evidence of failure, they often reach a state of denial and always have an excuse for their powers failing on a particular occasion.

Peter Rogers & Steve Walker

Cards, Magic & Mumbo Jumbo

Steve Walker’s and Peter Rogers’ demonstrations of card and cord tricks are impossible to describe in words, but were certainly most impressive. With magic, you just have to be there.

Steve Walker ties Annie Warburton in knots

Rev Tim Costello

Social Impact of Gambling in Australia

Tim Costello described to us the grim picture of Australia having the greatest of gambling opportunities, including 21% of the world’s poker machines. He said that the single dominant reason for the prevalence of gambling in Australia is that state governments are responsible for regulating gambling, and as the federal government reduced funding to the states over the past twenty five years, they resorted to gambling as an easy way to raise funds.

The biggest issue is that the poker machines are directly linked to the poorer suburbs; in effect, the proceeds from gambling are a regressive tax, shifting resources from the poor to the rich. This has led to many social problems but there seems little possibility that the states will reduce gambling.

Andrew Scott

Beating them at their own Game

Having been banned from all casinos in Australia that he has ever played in, Andrew Scott now teaches his techniques for winning at BlackJack. It is possible to win at BlackJack, but it requires skill, however casinos bar and restrict skilled BlackJack players, therefore improving their own odds of success. Strangely, in most states and they have the legislative backing to do this. This seems more than a little unfair (to say the least).

Richard Lead

How to get rich Without Working and many other Myths

(See paper in this issue).
Pascal’s Wager

It came to me in a vision, so it must be true. Be true, be true, be true – it kept going through my head and sounding incomplete; a subliminal syllable or part of a syllable kept suggesting itself. And suddenly I caught it: a subtle yet distinct terminal that eventually resolved into a quiet, plosive ‘t’. Be true(t), be true(t) – Beetroot, it was “Beetroot”. In a flash of revelation it all became clear.

The Great Beetroot was the answer to it all: the Creator, the Destroyer, the Generator, the Consumer. Not a Beetroot in the ordinary sense but a being the essence of which evokes a sense most simply described as Beetroot. The Great Beetroot created the world in order to provide itself with a constant source of humus so that it might live forever. It experimented with all manner of life forms – from the microscopic to the Burgess Shale worms and weird things, crustaceans fish, reptiles, dinosaurs, birds, mammals - wiping things out and starting again trying to find something it could depend upon as a reliable humus producer. Finally it hit upon one that was better than just about all the rest put together. This creature stirs things up so much more than any other, makes so much mess and creates so much detritus, and when it dies it makes the best humus, so The Great Beetroot called it the Humus Being, and on that day the Creator rested.

This made many other things clear. When we go to the Great Veggie Garden in the Sky, the Great Beetroot judges us. If we’ve made lots of mess and waste we are rewarded by being installed as Consuming Angels - given white robes, soft, fluffy abodes, endless resources and encouraged to waste as much as we can. The abstemious and people who choose not to believe in the ideals of the Great Beetroot are punished by being used as fuel to keep the furnaces of the humus processing plants going.

If there is a Beetroot, He is infinitely incomprehensible, since, having, neither parts nor limits, He has no affinity to us. We are then incapable of knowing either what He is or if He is ... you must wager. It is not optional. You are embarked. Which will you choose then? Let us weigh the gain and the loss in wagering that He is. Let us estimate these two chances. If you gain, you gain all; if you lose, you lose nothing. Wager then without hesitation that He is.

The Great Swindle

This is a restating of Pascal’s Wager with a different premise. Pascal argued that it is a good bet to believe in God because, if you’re right, you win heaps and if you’re wrong you lose nothing; the alternative, disbelieving, risks losing heaps or gaining nothing. This is a paper that applies the rigours of maths to the serious business of punting.
neither parts nor limits, He has no affinity to us. We are then incapable of knowing either what He is or if He is... you must wager. It is not optional. You are embarked. Which will you choose then? Let us weigh the gain and the loss in wagering that God is. Let us estimate these two chances. If you gain, you gain all; if you lose, you lose nothing. Wager then without hesitation that he is.

http://www.geocities.com/paulntobin/pascal.html

There’s an awful lot been written on Pascal’s Wager from lots of perspectives but it strikes me as a simple Sucker Bet. If you accept the premise that God is good and will reward believers his argument makes sense. But that may be a mighty big if. God may be a trickster who actually only rewards clever bastards, he may be Odin who only rewards accomplished killers, he may be the Great Beetroot who only rewards excessive consumers. Even if he is as the Pope believes, he may be more particular about the sin of gambling than we think and Pascal’s recommendation is damning.

If you’re a betting person, it is much more likely, especially given the variety of such models throughout history, that the notion of a deity is a social construct that forms part of the glue that binds communities - memes to an end, as it were.

Non-Transitive Relations

The following is drawn from a Martin Gardner column in Scientific American titled “On the paradoxical situations that arise from nontransitive relations”, sometime in the seventies. I think – or the sixties (but who can remember them?)

Transitive relations are dependable. Arthur is taller than Beryl who is taller than Charlie so you can be sure that Arthur is taller than Charlie. Non transitive relations can be very slippery - Arthur loves Beryl who loves Charlie. It does not follow that Arthur loves Charlie; in fact, for this operation, the reverse is a good bet. The old game of Paper Rock Scissors is a good non-transitive betting game. Paper beats Rock which beats Scissors but Paper does not beat Scissors.

Condorcet effect

It is easy to build Sucker Bets around non-transitive relations and they have turned up a few times in voting. A paradox called the Condorcet effect (after the Marquis de Condorcet, 1785) shows how it can happen that you can elect anyone you like depending on how you count the votes. The following table shows how each third of the population might give their preferences to three candidates, Arthur, Beryl and Charlie.

<table>
<thead>
<tr>
<th>Vote/Rank</th>
<th>1/3</th>
<th>1/3</th>
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<tr>
<td>1</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>C</td>
<td>A</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>


This is a real Achilles’ heel of Proportional Voting (that it often puts in office a man who is cordially disliked by a majority of voters) that was rediscovered by Lewis Carroll and not fully recognised until the mid-1940s by Duncan Black, a Welsh economist. It is part of a broader paradox about Democracy articulated by Kenneth J. Arrow in his “Impossibility Theorem” that earned him a share in the 1972 Nobel Prize in economics. He showed that the five conditions that everyone agrees are essential for a democracy with decisions made by voting, are logically inconsistent. One surprising recommended way out of a deadlock is to chose a “dictator” by lot - this is essentially the rule played by the Monarch in the English system of constitutional monarchy.

As Paul A. Samuelson has put it:

“The search of the great minds of recorded history for the perfect de-

mocracy, it turns out, is the search for a chimera, for a logical self-con-
tradiction .... Now scholars all over the world – in mathematics, politics, philosophy and economics – are trying to salvage what can be salvaged from Arrow’s devastating discovery that is to mathematical politics what Kurt Gödel’s 1931 impossibility-of-proving-consistency theorem is to mathematical logic.

Tournament paradox

You can mess up a tournament by arranging teams in a non-transitive manner. Consider nine players, higher number means stronger player, arranged into three teams (championed by Arthur, Beryl and Charlie) as in the table.

In a tournament where each member of one team plays one game against each member of the other team you end up with a dilemma. Arthur’s team beats Beryl’s 5 to 4 (player 8 beats 3, 5 and 7; player 1 loses three games, player 6 beats 3 and 5), Beryl’s team beats Charlie’s 5 to 4 and Charlie’s team beats Arthur’s 5 to 4. Who the hell wins?

The same table might represent Arthur, Beryl and Charlie’s scores on Experience, Intelligence and Personality that a prospective employer is using to choose between the three. Taken by pairs the employer finds that she prefers Arthur to Beryl, Beryl to Charlie and Charlie to Arthur.

Or they might be Apple, Blueberry and Cherry pies with the numbers scoring their taste, freshness and size and you are left unable to chose.

You can translate this into a Card Sucker bet by presenting the teams as three-card hands in a trick-taking game. Ask the Sucker to pick a hand and you can always pick a hand that has a better chance of winning.
Sucker Bets

Coin runs

One of the most incredible of all non-transitive betting situations, discovered (appropriately) by a mathematician named Walter Penney, was given as a problem in the Journal of Recreational Mathematics (October 1969, p241). It is not well known and most mathematicians simply cannot believe it when they first hear of it. It is certainly one of the finest of all sucker bets.

We each bet on a particular string of Heads and Tails. Then start throwing a coin until one of our sequences comes up. For instance, Arthur picks HH and Beryl picks TT. The sequence of throws might go THHHTHTHTHTHTHTHTHT and Beryl wins because it eventually came up TT.

Those two are obviously equally likely (by symmetry) but if Beryl chose TH against Arthur’s HH she has three chances in four of winning because unless it comes up HH straight away (1/4 odds) it must meet TH first. Here is the complete table for two-strings showing the chance of Beryl winning. You can see that if Arthur sticks with mixed strings (HT, TH) he is OK but if he picks HH or TT then Beryl can find an advantage.

<table>
<thead>
<tr>
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<th>TT</th>
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<tbody>
<tr>
<td>HH</td>
<td>1/2</td>
<td>1/4</td>
<td>1/2</td>
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<td>HT</td>
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<td>TH</td>
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<td>TT</td>
<td>1/2</td>
<td>1/4</td>
<td>1/2</td>
<td></td>
</tr>
</tbody>
</table>

Chance of Beryl winning.

Things are more dramatic with strings of three. No matter which sequence Arthur picks Beryl can always find another one with better odds, eg Arthur picks HHT, Beryl’s best bet is THH with 3/4 chances.

A neat algorithm for the best bet in triplets comes from Barry Wolk of the University of Manitoba. Make the first triplet a binary number with H=0, T=1. Divide this by 2 (rounding off), multiply by 5, add 4 and the last three digits are the best bet, eg if Arthur picked TTH this is 110, divide by 2 gives 11, times 5 gives 111, add 4 gives 10011, best bet is 011 = HTT.

Monty Hall (Three Doors Paradox)

Game show players, you have three doors to choose from, one hides the prize. You choose a door. The host says, “just before we open that door I will show you one of the others”, (opens a door showing no prize), “do you want to change your choice?” Is there any advantage in changing?

It sounds like there’s no advantage. It feels like there’s no advantage. Just about everyone (including Mathematicians, Magicians, Gamblers and Crown Prosecutors) who looks at this agree there’s no advantage. But there is! You double your chances of winning.

This puzzle is so non-intuitive that nearly everyone who meets it has an embarrassing period where they will swear blind there is no advantage and almost pick a fight with anyone who says there is. I include myself in that list - it took me about a week to persuade myself it is true. I mentioned it in the Skeptic in 1998 (Vol 18 No. 2) and it generated vigorous responses for almost a year.

A good description of the puzzle is, The Man Who Loved Only Numbers by Paul Hoffman (Fourth Estate, London). This is a biography of Paul Erdős, an extraordinary man, a mathematical genius whose motto “Another roof, another proof” describes the period when he stayed in one friend’s house after another, staying just long enough to help them solve some otherwise impenetrable maths problem and not long
enough to seriously wear out his welcome. Mathematicians apparently all have an "Erdos number", 1 meaning you published a paper with Erdos, 2 meaning you published a paper with someone who had published with Erdos, etc.

History
The puzzle was first described by Marilyn vos Savant in her column called “Ask Marilyn” in Parade magazine, September 9, 1990. It was called the Monty Hall dilemma (Monty Hall was host of Let’s Make a Deal) and originally had a car and two goats behind the doors. When the solution was published everyone who read it thought it must be wrong. Mathematicians from all over the planet, including Erdos, wrote in squeaking like plucked figs, complaining about the damage to public understanding of maths and so on. Eventually they changed their minds but the impact of the puzzle was extraordinary.

You are utterly incorrect about the game-show question and I hope this controversy will call some public attention to the serious national crisis in mathematical education.

E. Ray Bobo, PhD at Georgetown.

As a professional mathematician, I’m very concerned with the general public’s lack of mathematical skills. Please help by confessing your error

Robert Sachs, PhD, George Mason University.

Empirical evidence
Daryl Colquhoun, a Sydney Skeptic, has run a computer simulation that confirms that you double your chance of winning from 1/3 to 2/3 by changing your choice.

Rod Langlands, from Clarkson Community High School, Perth, sent in an email which included:

You may be interested to know that I have done the experiment with my 2 classes of year 9 Maths students this week and the results were as expected. I had half the class staying with their first choice of door and the other half of the class changing doors when given the opportunity.

There were 1300 trials in total (both classes combined) for each of the two choices (stay or move) and results were as follows:

Stay with first choice: 460 successes out of 1300 trials. = approx 0.35

Change doors: 891 successes out of 1300 trials. = approx 0.685

In both cases a difference of approx 0.02 from the expected theoretical result.

Ross Martin, a Senior Crown Prosecutor no less, perfectly demonstrated the development of one’s understanding of the puzzle. He sent in an email of the first kind complaining that there couldn’t possibly be an advantage. Some time later we received a second one (published in Vol 18 No. 4) describing his experiment with cups, counters and dice that began ...

it occurred to me that, while I knew that my critique of Seidel must be correct, there was no point trading arguments when an experiment will prove the case one way or the other.

To my utter (and unworthy) surprise, Seidel is right. The arrogance and presumption in my previous critique is manifestly misplaced, and I bow my head, shamed and embarrassed, in respect of it.

… and ended ...

If you have space, you may think there is merit in presenting both my letters as an example of the triumph of skepticism - the pursuit of evidence over mere argument and illusory “logic”. I am both humbled and delighted by this experience; in particular, my awe at this impressive engine for determining truth is renewed.

Conclusion
So, we’re all agreed there’s a Sucker born every minute - or, to return to the opening question and to quote Ruby Wax - there’s a Seeker born every minute.

You’d think having a sense of probability would protect you but the evidence shows that no amount of academic excellence can protect against rat cunning. And, in a sense, smart people are easier to swindle because they have such confidence in their own intuition.

So, you need to trust the instrument of experimental evidence ahead of gut feel, especially when tinged with passion. Or, as I always say, you need to constantly ask,
The Bible has over 500 verses which contain the words money, riches, or wealth. The best known is probably 1 Timothy 6:10: For the love of money is a root of all kinds of evil. Not one of those 500 or so verses has a good thing to say about money, riches, or wealth. Given the influence the Bible has had on our society over the centuries (and even today) it is not surprising many people fall for the greatest money myth of them all:

Myth 1

Money Doesn’t Make You Happy.
As the Beatles’ song goes, ‘money can’t buy me love’. But from many years of keen observation I have discovered a sure-fire way off telling how wealthy a man is. Just look to see how beautiful his second wife is!

If I were to say piously to you that money doesn’t make you taller, becoming rich won’t make you more intelligent, wealth won’t give you the power to levitate, and if you win lotto you will not become psychic, then you will suspect I am not the sharpest tool in the shed.

And yet we regularly hear ‘money doesn’t bring happiness’ and let it pass without quibble. It is a non sequitur. Money causes wealth. That’s what it’s made for. Did eating lunch today make you happy? That’s not why you ate lunch.

Myth 2

Capital-Guaranteed Investments
Readers may have spotted full-page advertisements in the press with the alluring headline: Can a capital guaranteed investment still aim for 20% pa medium term growth? (Can you spot the two weasel words?) The “sponsor” is a company named OM Strategic Investments Limited. The red Westpac logo appears prominently.

Capital-guaranteed investments are an illusion. Assume you have $1 million to invest, and you want a high yield with no risk. Today you purchase a 90-day commercial bank bill with a discount rate of 4.86%. The face value of the bill is $1 million, but you only need $988,158 to purchase the bill. The $11,842 interest (technically known as the dis-
count) is effectively paid in advance. In 90 days the bank will pay you $1 million, so it doesn’t matter what you do with this $11,842 “free” money. You can invest in highly speculatively investments, take it to the casino or Flemington, or spend it on beer — your $1 million is guaranteed.

Back to our alluring 20% capital-guaranteed investment — to quote from the advertisement:

The investment strategy is to capitalise on the performance of two leading international investment programs which are not linked to the performance of traditional investment strategies in stock, property and bond markets.

OK, we have our casino in place. Let’s calculate the odds:

The “medium-term” investment is for 10 years. Westpac guarantees to return 100% of your initial investment in 2012. The 10-year government bond rate is currently 5.54%, so Westpac needs to buy $643,501 worth of government bonds to reach your guaranteed $1 million by 2012. The remaining $356,499 in “free money” is available to be invested in the two leading international investment programs to earn your aimed-for 20% growth. But wait — with only 35.6% of your money going to work (the rest funds the Westpac guarantee) these funds must yield 56% to equal 20% on the total! Every year, for ten years!

The advertisement boasts they have taken US$1.4 billion since 1996. I have met a number of their victims.

Myth 3

Kerry Packer Pays No Tax

I hear this at least once per week. A client will present me with yet another hair-brained tax scheme. And when I shake my ancient head and growl ‘bulldust’, a frequent response is along the lines of: “But there must be SOMETHING available; after all (all together now) Kerry Packer pays no tax.”

Because of the secrecy provisions which protect Australia’s income tax regime, we have no way of knowing how much personal income tax Kezza pays. It doesn’t matter. Many of his investments are on the public record. Take his investments in the listed company Publishing & Broadcasting Limited (“PBL”). The 2002 Annual Report reveals Kerry Francis Bullmore Packer owns 247,572,325 PBL shares, some 40% of the issued capital. At current market values, his holding is worth a lazy $2 billion. PBL incurred a loss in 2001 of $47 million, yet paid income tax of $76.9 million. In 2002 it made a profit of $316 million, and paid income tax of $71.4 million. Kezza indirectly paid almost $60 million tax in two years through his 40% interest in PBL.

Yet salaried workers armed with a glossy prospectus still, in 2002, think they can do a total-tax wipeout.

Myth 4

Property is the Best Investment

We hear this all the time, and not just from real estate agents.

Our newspapers are full of advertisements from “self-made millionaires” enticing the public to attend free seminars on how to get rich with real estate. I have met several people who paid $15,000 to attend a four-day intensive workshop after attending one of these free seminars, and they are well on their way to certain bankruptcy.

I will save you four days and $15,000. This is how it supposedly works: You buy a property, borrowing 90%. After one year it has increased in value, so you increase the mortgage to 90% of the market value, and this becomes the 10% deposit for your next property. In year three you repeat the procedure, and buy 2 additional properties. Before you know it, you own half of Australia. (You can send me the $15,000 if you insist.)

There is no such thing as a “best” investment. There is a best investment for any given time period, and the skill is to predict which investment sector will outperform the others in that time.

The following is an accumulation index produced by investment researcher Assirt Pty Limited. It lists the annualised returns of various investment sectors for the ten years ending March 2002. Property price movements are based on median values. An accumulation index assumes annual incomes (rents, dividends) are reinvested.

<table>
<thead>
<tr>
<th>Year</th>
<th>2 bedroom sales</th>
<th>3 bedroom sales</th>
<th>4 bedroom sales</th>
<th>Median Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>200,000</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>250,000</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>300,000</td>
</tr>
</tbody>
</table>

What a property boom! But remember, the price of each house never changes. This is obviously an extreme example, so let’s compare
some actual median price movements with movements in the Repeat Sales Index. An RSI takes pairs of sales of the same property to calculate value movements. The belief is that if enough properties form part of the index, the RSI gives an accurate result.

The following table compares median movements to RSI movements for various Sydney suburbs in 1998:

### Home Units

<table>
<thead>
<tr>
<th>Suburb</th>
<th>Median</th>
<th>RSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crows Nest</td>
<td>18.25%</td>
<td>(4.17%)</td>
</tr>
<tr>
<td>Potts Point</td>
<td>14.62%</td>
<td>(1.25%)</td>
</tr>
<tr>
<td>Penshurst</td>
<td>30.54%</td>
<td>5.78%</td>
</tr>
</tbody>
</table>

### Houses

<table>
<thead>
<tr>
<th>Suburb</th>
<th>Median</th>
<th>RSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merrylands</td>
<td>19.39%</td>
<td>7.55%</td>
</tr>
<tr>
<td>Lugamo</td>
<td>17.89%</td>
<td>3.91%</td>
</tr>
<tr>
<td>Leichhardt</td>
<td>(4.48%)</td>
<td>12.83%</td>
</tr>
</tbody>
</table>

My second problem with real estate growth figures is they don’t take property improvements into account. A nice tax-free earner is to buy a rundown house as your main residence, substantially renovate it, and then sell it. The Repeat Sales Index on this property will be wildly optimistic.

Another problem, although probably not too common to distort the overall market, is the ramping of the contract price. I have been asked on several occasions the tax consequences of inflating the contract price of a property, with the vendor returning part of the proceeds to the buyer ‘under the table.’ Presumably this is to enable the buyer to borrow additional mortgage funds.

### Myth 5

**Investing in the Stock Market is Gambling**

Many years ago I knew a pious young Baptist chap who was forever telling his workmates of the evils of gambling. I agree with him on the evils of gambling, but for a more rational reason than words in the Bible. Stupidity is not a virtue. Anyway, this chap held some blue-chip shares, which he sold when his workmates accused him of hypocrisy. Mozley & Whiteley’s Law Dictionary defines gambling as: *The playing of a game of chance for winnings in money.*

It defines a wager as: *A mutual contract for the future payment of money by A to B, or by B to A, according to some unknown fact or event, otherwise of no interest to the parties contracting.*

Like most things in life, owning shares has its risks. The Baptist fell for the false syllogism ‘gambling is risky, the stock market is risky, therefore the stock market is gambling.’

Gambling is a zero-sum game — for me to win, the other party must lose.

### Myth 6

**Dollar-Cost Averaging**

Stock brokers and investment advisers love this one. You buy 1000 shares at $1 per share. Unfortunately, the share price then drops to $0.50. So you buy another 1,000 to ‘average down’ to $0.75 per share. See, you haven’t lost anything, have you!

There are very good reasons to buy more shares when the price drops, but averaging is not one of them. The average of $0.75 is an illusion — you hold two parcels of shares, one costing $1 and another costing $0.50. Suppose that instead of buying another 1,000 shares for $500 you bought a rental property (always the best investment) for $1 million. What is your ‘average’ now. There are many variations of dollar-cost averaging, and they are all an illusion.

### Myth 7

**Banks Can Lend 10 Times Their Deposits**

I don’t understand why most people hate banks when there are so many insurance companies out there.

So many times we hear that if you deposit $1,000 with your friendly and courteous bank manager he can then lend out $10,000.

The 2002 balance sheet of the National Australia Bank reveals loans to borrowers of some $231 billion and deposits from the public of some $226 billion. Shareholders’ funds total $23 billion.

Loans total ten times shareholders’ funds, not deposits.

Don’t ruin the day of conspiracy theorists by telling them.

### Myth 8

**Margin Lending**

Banks and other financial institutions advertise heavily to lend you money to buy shares and managed funds. The security for the loans is the shares you buy. The normal lending ratio for a blue-chip share is around 80%. If the share price falls you must pay a margin call to bring the loan back to the 80%, hence the name margin lending.

So you think you are so smart you can invest these funds and achieve a return greater than the interest you pay the financial institution. And the financial institution thinks it is so dumb it can’t do this, so lends you the money instead!

I am aware that banks have prudential controls in place to limit their stock market investments, but the internal contradiction is the same. The financial institution believes lending money to you is a better investment than the stock market, and you disagree with them.

Some recent variations in margin lending involve equity-protected loans. Borrow the money, buy the shares, and if they increase in value you keep the profits. If they drop in value, you sell them to the financial institution at cost. You can’t lose, Mr Sucker Investor. The interest rate? I have seen some at 30%. Even OM Strategic Investments Limited would blanch at that.
Why are gamblers especially superstitious? As Skeptics, we are aware of the sea of superstition that surrounds us. But in casinos, the sea practically engulfs the customers. This leads to many spectacular examples of craziness in the casinos. Why is this?

Well, I think the broad answer reflects quite kindly on the gamblers. The human mind evolved by constantly searching for a pattern to its confusing environment. As a species we have been brilliantly successful in constantly analyzing, classifying and then organizing our environment, then bringing order to it. Yes, we're a marvelously rational race — until we start to gamble. We now approach an environment of utter disorder. Our brain immediately springs into action, and search for a pattern. And heaven help us, it finds one where none exists. It sees winning streaks! Losing streaks! The dice are “hot”! We're “on a roll”! The cards are on our side tonight! Let's bet it up, up, up! Whoopee! This is our lucky dealer! Or our lucky jacket! Or our lucky companion!

Now, those feelings can be very strong indeed. And they can affect everybody, once they sit down at a gambling table. It's bad enough with regular players, but in Las Vegas especially, which hosts lots of conventions, I started to notice the many convention delegates. “I'll bet it up!” says the player next to us, “I'll take a chance, I could be dead tomorrow!” We start to wince, then notice that he is wearing a name tag on his jacket lapel. He is attending one of the many conventions held in Vegas and Atlantic City every year. We read the tag. “American College of Emergency Physicians”, it says. Hmmm. Would we want this man attending us in a medical emergency? Ah well, he's probably quiet calm away from the gambling tables.

Now we're at another table. “Give me Scotch,” the convention delegate says to the waitress, “I always win when I drink Scotch.” We look at his tag and see that he's a member of the Society of Petroleum Engineers. We have visions of him out there in the remote hills of Peru, prospecting for oil, consulting his astrological charts, his divining rods at the ready. Will he sacrifice a goat if he has poor luck?

Okay, I'm just kidding ... but it does show that gamblers are irrational — but only temporarily. The lure of the cards is so strong that it derails the judgment even of highly-skilled, professional people, including those with scientific training.
Management not immune

When I first started frequenting casinos, initially going from Los Angeles to Las Vegas, that was not entirely surprising to me, but what did surprise was how much superstition was present among the casino staff themselves. For example:

Jeanne is a pit boss (inspector) at the Golden Gate casino in Las Vegas. Tired of the drab garb typically worn by her male colleagues, she shows up to work one day in a smart new jacket, bright red and stylish. The shift proceeds to lose a lot of money. The shift manager is angry. Finally, he turns on her. Don’t you ever report for work wearing red again, ” he snarls “or you’re fired! Don’t you see how unlucky that is?

Vegas has no monopoly on casino superstitions. The most superstitious casino I know of is Genting Highlands, the only casino in Malaysia. That’s because although superstitious individuals abound in all casinos, in Genting superstition is raised to the level of official casino policy! That’s all the more remarkable because this is no exotic Oriental gambling den, it’s an ultra-modern, lavishly equipped resort complex, wonderfully situated on top of a giant mountain, mist-shrouded like some Shangri-La.

I am observing the blackjack game here. They use four decks of cards, dealt from a wooden dealing box called a “shoe”. It takes about ten minutes to complete a shoe. At that point the pit boss approaches the table, and makes careful note of how many chips are left in the dealer’s rack. Unlike in many casinos, where they usually care how the individual players are doing, here I realize they care only how the whole table is doing. But boy, do they ever care! If that naughty shoe starts to lose, the pit boss looks worried. If it loses more on the next pass, he has an anxious conference with a colleague. I start to giggle: I have visions of them coming over with a whip and lashing that delinquent shoe.

Instead, they do something even more dramatic: they come over and close the table. They put the lid on top; lock it; the dealer leaves; and the table sits there, a gaping hole in a long line of other blackjack tables, all not just busy, but so full that people are standing around them waiting for empty seats. It doesn’t bother the casino. That unlucky shoe has to cool off. They let it do so for three whole hours. Finally, they nervously come and reopen it. It is on parole.

I initially thought that might be just an isolated incident or a particularly mad pit boss. But after more observation there, and asking around, I found that it was their regular policy. Naturally, us Westerners are much too smart to go for a dumb superstition like that, right?

Alas, no. Now we go to Atlantic City, New Jersey, in the sophisticated US of A. It’s a long way from Malaysia. Resorts Casino is huge, and the oldest in town. If anybody knows the games it should be these people. They partially segregate their high-stakes games into a suave little pit, just as Australian casinos now do. And they put their fastest, most skilled dealers on the games in that pit. In the crude status system of the casino, that makes those dealers top of the heap. But there’s a catch: if they start to lose heavily to some big players, the pit bosses start to sweat behind them. That’s normal, I’m afraid, even though it’s silly. But then, if they lose too much more, the pit bosses yank them right off the game, to deal on the vast, crowded, noisy main floor. So even though it’s probably easier to deal to a bunch of five dollar players anyway, it feels like a punishment to them.

I’m afraid that kind of treatment is quite common in other casinos too. But the difference here is that there is a formal dealers’ association; the president of the hotel agrees to meet with them regularly; and when they protest about this treatment:

— first, he’s aware of it. (That’s not guaranteed: many high executives of casinos are only dimly aware of what goes on on the casino floor, especially in Europe).

— second, he cheerfully defends it! He says, “Sometimes a dealer just gets unlucky. We’ve got to be able to take counter-measures at that point.” And he refuses to change the policy.

In Australia the whole atmosphere in the casinos is calmer, and management is pretty competent overall. But there are still interesting exceptions. I heard this classic incident from an inside source at the Hobart casino.

A player is winning heavily. The female inspector is exceptionally nervous. She keeps track of the result very carefully, and the poor dealer starts to feel her obvious displeasure.

Now the player wins even more, and the inspector snaps. She leans toward the young woman dealer and whispers urgently in her ear. The dealer looks startled. “You want me to what?” she asks. The inspector repeats it in another whisper. The dealer looks at her in disbelief, and slowly walks away from the table.

What on Earth did the woman pit boss say? I found out the next day from a woman dealer known socially. She said, “She told the dealer to rush down to the dealer’s room, take off her panties, turn them inside out, and then come back!”

Weird

One of the weirdest superstitions I have encountered was amazing not so much for itself, but because it came from a married couple who had just picked up the expert blackjack system, which assumes total rationality by the players. I met them so-
cially in California and this fact just came up in conversation by accident. Oh, I said, what stakes did they play, and what bankroll did they use? But from their answer, I knew they were heavily under-capitalized. I put this to them.

They looked at me tolerantly. “You don’t understand: if we lose more than a thousand dollars, we stop playing and then go back to Bakersfield. Then we come back a couple of weeks later when the games have cooled off.”

I wasn’t sure I understood. “You mean, you replace the thousand dollars first?”

“No,” they said impatiently, “there’s no need. We’ve broken our losing streak by leaving town!”

“But how do the cards in the first game you play when you get back know about that?” I asked, smiling. I thought I could kid them out of it. But we then went back and forth on the matter for a long time. And I totally failed to persuade them of the simple truth that you can’t “break” a losing streak like that. I warned them they would go bankrupt, and they laughed and said they’d see me in Vegas. But I never saw them again after that.

Mathematical truth

So what is the real, non-superstitious situation? What is the underlying mathematical truth behind gambling? Well, all you really need to remember, is that it all comes down simply to: they’ll get you in the end.

That is, the longer you play in a game where the casino has an overall “edge”, or “advantage”, the more likely you are to end up losing. I recall vividly a college class where the teacher dramatized that notion beautifully. Expecting a dry lecture, we were intrigued when he showed up with 15 miniature roulette wheels and handed them out. We spent the rest of the afternoon delightfully playing roulette in pairs, and charting our results against two previously plotted “90 percent confidence limit” curves. Those were the boundaries between which the results were supposed to lie, 90 percent of the time. The key point was that the two lines got closer and closer together towards the right of the graph. So our result was supposed to get squeezed into a narrower and narrower area. It happened, too: some of us won initially, some lost, but all our results stayed within the slowly shrinking area. We felt squeezed, ourselves. And finally, every single one of us was losing, and at very close to the predicted rate.

I loved it, and it was so graphic that I always remembered it. So that years later, when I first went to Las Vegas, just as a tourist, I never made even a single bet in three days. No blackjack, no craps, not even a slot machine. That’s a real non-gambler!

The 3 main concepts to understand with gambling are not really that difficult intellectually — but they can be damned difficult emotionally.

Expectation

This is simply the money amount you can ‘expect’ to win from a bet in the long run. It is best expressed as: chance of winning multiplied by how much you win; minus chance of losing multiplied by how much you lose.

For example, on a simple coin-tossing game, your chance of winning is obviously 50%, and the payoff is 1 to 1, and the same with your chance of losing, so your ‘expectation’ is 0.5 minus 0.5, or zero. Alas, for virtually all casino and sports bets, the Expectation is some negative figure.

The concept of Expectation is used because for non-even payoffs it gives us a single figure to make comparisons. There’s a marvelous story that illustrates all of this.

It’s in the book Mr Midshipman Hornblower. The year is 1793, and Hornblower, our hero, is a skinny 17-year-old who has just entered the Royal Navy. But an older, embittered midshipman soon manages to make his life so utterly miserable that he contemplates suicide. One night he ends up in a card game with this man and some senior officers when the man makes a hasty remark implying that Hornblower is cheating.

Hornblower sees his opportunity, and insists on a duel. His chance of survival looks low, perhaps only 10%, because the other midshipman is clearly a better swordsman and pistol shot. But still, Hornblower figures that 10% is better than the zero percent of suicide. But then he thinks some more. As the aggrieved party, he has the choice of weapons in the duel. He now comes up with his brilliant idea: he chooses as weapons two pistols, loaded at random with only one bullet! And the range is to be: point blank! One person will die for sure, at random. His fellow midshipmen are appalled. How can you be so brave but so cold, they marvel. What do you mean, Hornblower responds, I’ve just improved my expectation of survival from maybe ten percent to exactly fifty!

Casino Edge or House Advantage (expressed in percent)

Casinos have to cover their overhead, so your expectation in a casino bet is less than 100%. This figure is simply what percentage of all the money bet that the casino will retain, in the long run. It is a very useful figure to know for any casino game you are interested in, because it varies all over the place. Here are some examples:

With roulette, the casino edge is about 2.7%. With the dice game craps, it is about 1.4% for the main bets, and 2 to 4% for the auxiliary bets that most players also make. With blackjack, where there is some skill involved, the average player achieves around 3%. And what about gambling machines? Ah, now we move into the big time — it is typically, in Australia, around thirteen percent.

Fluctuation

Regardless of the casino edge, the player’s results will vary greatly. Just how much depends critically on the payoff odds. That is, a bet that pays 1 to 1 will produce the smallest fluctuation, while a ‘long shot’ will produce massive fluctuations.

This is a vital fact for the casinos
and the players, because the players will tolerate a much, much worse casino edge if it is disguised by massive fluctuations. Thus, imagine a gambling machine with the typical 13% edge, that made only 1 to 1 payoffs. It would become quickly apparently even to the dumbest players that they were committing rapid financial suicide. But with payoffs of 2 to 1, 5 to 1, 20 to 1, 100 to 1 and even higher, the voracious 13% edge is disguised very effectively.

**Why succumb?**

So why do players succumb to superstition so much: Well, if you haven't been in a casino much, you probably get your mental picture of gambler behavior in them from the movies.

But the movies give a highly misleading picture of gambling scenes, by portraying excitement, shouting, crying, all the visible emotions. In real life, 95% of the time you see the players just huddled there, looking numb, not talking much, and hardly reacting to their wins and losses. Yet appearances are deceptive: beneath their glazed expressions, the players are actually being enormously stimulated!

Look more carefully at their eyes. They have tunnel vision. They watch the cards a lot, the dealer less, the other players only occasionally, and they look around the casino hardly at all. They resemble people in a mild hypnotic trance. And gradually, you realize that that is no analogy, it's the truth. I started noticing evidence for all this right away.

Gamblers resemble drinkers in many ways, and one of them is their often bitter self-knowledge that their behavior is often self-destructive. Thus, as with alcohol we do get some bitter jokes. One of the best was told to me in Los Angeles before I ever went to Las Vegas, and I still think it sums up the whole scene nicely:

Experienced gambler to novice friend: Hey, I've just figured out an infallible method of coming back from Las Vegas with a small fortune!

Novice friend, excitedly: How?

Experienced gambler: It's simple. You go there with a large fortune. But I also admire the rueful self-knowledge implied in some of these, heard as a welcome relief from the monotony at the gambling tables....

“How are you doing?” asks the dealer as he scoops up yet another of the player's losing bets.

“Great! Just great!” says the player ironically. “I drove up here in my $30,000 Cadillac, and I’m going back in a $300,000 Greyhound bus.”

“I've written several books on this game,” says a player in a South African casino. “I raise an eyebrow, noticing his poor plays. “Yeah,” he says, “cheque books.”

I also like the cynical cautionary advice buried in the following old Vegas saying: “The less you bet, the more you win when you lose.”

Despite all the acceptance of losing, gamblers do win some of the time, and sometimes they win a lot. The crude figures that were the best available in Las Vegas when I studied this over a decade ago, show an average weekend visitor's gambling budget of about $1000. The number of hours per trip is 18, and the average bet is about $8. We have to assume a speed, and 100 rounds per hour is about average. We also assume an average casino advantage of 3%. The important point to note is that this 3% figure looks so small but isn’t. It's because the percentage grinds away on the total amount bet, remorselessly. A player starts out with $100 and bets $5. Three percent average loss, he thinks. I'll probably lose only $3 out of my $100. Not true, because in the next hour, at 100 bets per hour, he'll wager about $500, not $100, because he'll bet his winnings over and over. So his “expected loss” on that session would be $15, not $5.

So what kind of fluctuations can our average player expect on his typical weekend casino trip? With our assumptions, we have good news and bad news for him. The good news is that his chance of losing his entire $1000 is only about 4%. The bad news is that his “expected loss” is $432, and his chance of winning anything, even a dollar, is only 11%.

**Assumptions**

Statistics are one thing, but our assumptions are so shaky that the real situation is quite different. Because very, very few players sit there hour after hour and flat bet the game. What do they do instead? Alas, the most common pattern is to bet it up when they're winning. They're now on a “lucky streak”, which they feel will probably continue. Such feelings are helped along by most of the rest of the players and most of the dealers.

“There's only one way to gamble,” many of them say sagely. “When the cards are running in your favor, bet it up.” It is the single dominant gambler's fallacy. Attempts to get them to explain fail utterly, because there is no explanation. They look at you with benign contempt at your stupidity. It is “obvious”.

Anyway, the winner bets it up. That increases his chance of winning more, but also his chance of busting out. It drives his average bet size up, and he may not recall it properly to an interviewer later. Then there's the guy sitting next to him. He's losing badly. He might stop. But more likely, he'll also start raising his bets. He's got to get the money back! All in all, it means that the probability of losing all the money brought to town is a lot higher than our earlier dry calculations would indicate. Then what? Go home? Well, we said we wouldn't lose any more, Martha, but darling, the money machine is just around the corner....

Once in Las Vegas, long ago before ATMs invaded the casinos, I walked into the Western Union money transfer office. It was absolutely jammed with people, frantically arranging to have money wired in. The harried clerk looked at me. “I want to send some money to Michigan,” I said. “You want to send money?” He thought about that for a few moments. He looked completely blank, and I realized with delight that he didn't know how to do it.

**Dominant superstition**

The dominant superstition reduces to the bland statement: the current trend will probably continue. I'm
Gamblers’ Superstitions

making it easy for you here. Because put that way, the statement is pretty easy to laugh at. But in the excitement of a gambling session, it’s a different story. “When you’re hot you’re hot”, repeated endlessly like a mantra.

One day I was leafing through a collection of joke “Laws”, starting with Murphy’s Law, my mind a long way from the world of gambling, when I saw the best and funniest statement of the above belief that I’ve seen. Labeled Fagin’s Rule on Past Prediction, it says simply:

**Hindsight is an exact science!**

It’s impossible to argue logically with the players about such matters while at a gambling table. Otherwise, a simple way to refute the whole mess would be to say to the customer, if betting it up when you’re winning works, and walking away if you lose too much works, then why don’t you play professionally and win millions? And to say to the dealer, why are you still just dealing? Ah, but it’s hopeless. So for those thousands of gamblers who just know that they can predict the winning and losing streaks by looking backwards, I offer the following brilliant, previously top-secret strategy: the Parking Lot Strategy.

This is brought to you courtesy of a highly rational, professional gambler in Las Vegas. “I spent hundreds of hours of computer time developing this,” he said with a twinkle in his eye. “I wouldn’t give it to just anybody.... Here’s how it works: you get a van, and in it you install a blackjack table exactly like the one used in your target casino. You drive to its parking lot, and start to deal blackjack there. You use the same number of decks that the casino uses, their exact rules, and their chips. You deal to each other, and make all the payoffs correctly, and watch. Eventually, you’ll hit a terrific winning streak. When it lasts the number of hands or dollars that you’ve decided in advance — well, you rush from the van with lightning speed! You rush into the casino! You rush to the nearest blackjack table! And you bet like a fiend!”

I looked at him in mock indignation. “That’s the craziest strategy I’ve ever heard!” I exclaimed. “You’ve got it all wrong. You should deal until you hit a giant losing streak! Then you rush into the casino and bet it up!”

He slapped his forehead in sudden mock insight. “Of course, Dr Watson, of course! How could I be so stupid!” And then we rolled around the floor a few times, laughing.

**Gamblers’ Superstitions**

Gamblers superstition has much wider effects than most people realize. For example, it has indirectly caused the entire, bizarre wage situation for casino dealers. And their often bizarre psychology. I hasten to say that my initial remarks apply only to the dealers of Las Vegas, the Australian dealers are much, much better — but for reasons to do entirely with superstition!

I came to the game originally with no preconceptions about dealers. I was therefore quite startled to find so many of them surly, rude, even hostile. While repelled, I was also curious. After all, no entire profession is as nasty as Vegas blackjack dealers are, on the average, without good cause. If librarians, for example, are generally relaxed and helpful (which they are) we can find the reason in their working conditions. And if dealers are so unpleasant, they didn’t start out that way, the job gradually made them like that. For this reason the following highly negative remarks are best considered not as a violent attack on dealers, but an attack on their vile working conditions.

And vile they are, especially in Nevada, which we’ll talk about first. People are attracted to the job of casino dealer because it sounds glamorous and a little sinful. That’s a heady combination. Unfortunately, when they start working, they discover that the glamour is a complete illusion. First, the job involves standing up the whole time. Second, it consists of a small number of fairly simple manual manipulations (of cards and chips), repeated at high speed over and over. Now we have just described any number of industrial assembly line jobs, of the kind that are often described as dehumanizing, boring, and deadening. So it isn’t really surprising to find that most dealers are dehumanized, bored, and often indistinguishable from the dead. Or at least, from a bunch of zombies. They also have virtually no job security, being in danger of getting fired at all times.

They don’t start out dehumanized, of course. They are mostly interested in their new job, intrigued by its bizarre nature, even excited at the ups and downs. But then the problems start to sink in. And the worst problem is: tipping. And what causes gamblers to tip? It’s superstition.

The gamblers give the dealer a chip to “reward” him for “giving” them a winning bet. Then another, and another. Eventually, perhaps, they lose back their winnings, and get ready to leave. Does the dealer then refund some of those tips? Ha!

In major casinos, tips are shared among all the dealers on an 8-hour shift. Hence, when a gambler betting $50 tips a dealer $5, the dealer may get perhaps 5 cents of that. When this fact occasionally dawns on the player, the dealer in defense usually says, “It’s the only fair way.”

Australian gamblers are in a very good situation regarding tips: the authorities simply do not allow it. How did that happen? In 1961 British casinos were legalized, but with very loose legislation. By 1969 there were so many abuses that a Royal Commission was set up to...
reform the law, and all casinos were closed down and were forced to apply for relicensing under the new law. One part of the resulting study found that dealers were getting so many tips that they were being greatly overpaid. The casinos therefore simply confiscated a growing percentage of their tips. In the richest London casinos, the Commission found that this percentage exceeded 50%, and went as high as 90%. That makes economic sense, the casinos still had plenty of qualified applicants, but the Commission was particularly annoyed that the generous players who were tipping had no idea that most of their tips were going straight to the casino. So they simply abolished tipping.

It was a great improvement. The casinos had to pay the dealers more, and the gamblers not only lost less, they got rid of the whole surly, begging atmosphere that tipping dealers produces. And so, this is true today all over Australia.

The situation on the Continent of Europe is quite different. I had some casino consulting business to do in a small country there. I witnessed some odd, puzzling scenes around the roulette table on my first night. Was I really seeing what I thought I was seeing? The dealers extract a tip equivalent to a whole extra bet from the players, when their number comes up. That is about once in 35 spins of the wheel. But this one player was refusing to go along with that. Now the European roulette layout is huge, so much so that players need the cooperation of the dealers to place their bets. And these dealers were being deliberately slow to help this player. Eventually, they started paying him off incorrectly! And after that, he simply left the casino.

I checked with my insider source, who was the number two executive in the whole organization, which ran all 10 casinos in the entire country. He confirmed it. “Yes, but that only occasionally happens, usually the players are so intimidated they tip eventually.”

“But how can the table manager allow that?” I asked.
He laughed. “Don’t you realize? They share in the tips as well.”
And so, he further explained, did the overall casino manager. And even, the ladies who took in the coats, and the barman, and the people who cleaned the toilets. Further, these tips were shared among all 10 casinos across the whole country. Even the managers in the head office, who seldom went inside an actual casino, got their share! Further, the tip level was so high, that the casino paid all these people nothing!

“Who does not get paid from tips?” I asked, astounded.

“Just me, and my boss,” he said.

**Social Control**

Another speaker will speak on the wider social effects of gambling within Australia, but I would like to add a few foreign accounts.

There have been some interesting regulatory attempts. For example, would you believe a casino in an isolated location, where the government requires its own nationals to deposit about $150 in cash at the entrance in order to be admitted, to ensure that they are not stranded there after going bust? Or on another continent, a casino where high-stakes players are likely to be placed on a quota of three visits per month, maximum, to guard against them going bankrupt in their businesses? Or in another country, you are not allowed to gamble within about 30 km of where you live.

That kind of quarantine is very popular. Indeed, it is the accidental solution chosen by default by California regarding Las Vegas, which is a 6-hour drive away across a boring desert. It is a solution popular around the world, too, the sitting of a casino across a border of some kind, a moderate journey from its major market. Thus, Sun City in South Africa is a three hour drive from Johannesburg. And in East Asia, Macau is a two hour hydrofoil boat ride from Hong Kong, source of almost all its customers, so that the gambling is actually in Hong Kong dollars. Further examples are numerous, but I’ll close with perhaps the most peculiar,

Campione, which is in Switzerland, except that it’s in Italy. Confusing indeed: it turns out to be a tiny enclave of Italian territory, just one large village, completely surrounded by Swiss territory. Proper casinos are frowned upon by the sober Swiss, so naturally, there is a very large one in Campione.

As we’ve seen, the casino world is so bizarre, and gamblers’ behavior is so mysterious on initial observation, that it takes quite a while to understand the reality behind the glittery facade. Many regulatory agencies never properly succeed in doing that. But after long observation, I think there is a quick and useful shortcut to understanding that can be taken: the situation is directly comparable to people’s use of alcohol.

Yes, alcohol. After all, I’ve been comparing gambling to a drug throughout, and just as with alcohol, many people enjoy its moderate use; some usually moderate people sometimes lose control and go on “binges”; and some turn into the gambling version of alcoholics. The similarity is strong enough — but suppose that the sale of alcohol were to be restricted as sharply as gambling is! Imagine if there were no bars allowed in all of Victoria, but there was one legal one in Melbourne. Wouldn’t it be enormous? And wouldn’t people drive vast distances to drink? And wouldn’t they then frequently freak out on giant drinking binges, just as gamblers do? If that’s true, then the alcohol similarity becomes a useful mental tool to use if we have trouble getting our minds around the apparent insanities of gambling behavior, and I offer it in that vein. That crazy-looking gambler isn’t really crazy — he’s just drunk on gambling. Tomorrow he’ll be sober, though probably poorer.
In which Richard Saunders celebrates his ascension to the Skeptical hierarchy by touring the psychic, paranormal and pseudo-scientific fringe-lands

Psychic fair (go)

On October 20, 2002, the two Richards, Lead and Saunders, made their way to the NSW central coast to visit the Psychic and Alternative Fair held at the Mingara Club near Tuggerah.

It was the usual line up. New age this and that, alternative health mumbo-jumbo, a woman doing Reiki in the style of a flamenco dancer, frantically clicking her fingers all over her ‘patient’, lots of crystals, numerology and more tarot cards than you could poke a chakra at. One of the things that struck us almost immediately, was the number of crude home-made signs for ‘readings’ or whatever. At $20 per 20 minutes, we figured they could do a great deal better.

We soon found ourselves at the Dianetics stand where we sat through a 40 minute video on the subject. Yup, L. Ron Hubbard was a science-fiction writer and it showed. I then tried out the famous ‘E-meter’. It took me all of 5 seconds to discover how to make the needle in the dial move around to where-ever I wanted. The operator, just a kid in his late teens / early 20s, soon became confused when the needle stood still when it should have moved and vice-versa. The strange thing was, we didn’t see the word ‘Scientology’ mentioned anywhere.

Next we attended a lecture on numerology. It was given by an older lady who really believed she had found the secret to understanding people. We added up the numbers in our birthday and worked out our birth number. These numbers were the key to our personality. Unfortunately the personality traits were nothing more than a string of generalisations and strange logic. OK, it was harmless fun until she told us that we could and should use this system to screen job applicants and decide whom not to employ!

Drifting around the other stalls, I came across a large iridology chart,
which is something I’ve always wanted to buy, and so I did. “May I have a receipt?” I asked. A look of confusion appeared on the face of the man behind the desk. “Err, we don’t have any paper here, sorry.” It made us wonder how many psychics and such like don’t give out receipts. Something the tax office might also care to wonder about?

The Amazing Valda ...wasn’t

Then, after a nice lunch in another part of the club, it came time to see the stage show of the “Amazing Valda”, the clairvoyant who claims to be able to provide audience members with ‘messages from loved ones’. We sat down among an audience of about 500 and wondered what she might have up her sleeve. We are always on the lookout for a new trick or angle and who knows? We may even find a real psychic.

Valda began her act by telling us that we should all buy her books. Then we were informed that a ‘young lady’ would be dancing on stage throughout her act. We looked — no-one else come on stage. Ah Hah! It was a spirit dancing on stage! Valda told us that only clairvoyants could see her, and sure enough, a few hands went up. Over the next hour, this invisible dancer would bump and prod Valda without warning. How rude!

Here are a few, I hesitate to say ‘highlights’, from her act, and yes, ‘messages from loved ones’ means talking to the dead.

Valda tried to get a hit by using the initial ‘D’ with a man in his late 50s. She kept at it until it was apparent that the man knew of no one that fit. OK, how to get out of this? Ah! ‘D’ stands for ‘Dad’.

The initial ‘H’, to a lady also in her late 50s, also met with a blank. “Who is ‘H’?” Finally Valda said that ‘H’ stood for ‘Helper’! “They’re telling me that you’re a Helper!”

What is it about ghosts and letters of the alphabet?

Another lady was asked, “Who liked to cook ... scones? She’s on the other side?” Again, no hit. Cooking scones quickly turned into eating scones which turned into reading books which turned into reading books about scones which turned into eating scones while reading books and so on.

“Who was it who liked gardening? Is it you? Was it someone else? Was it anybody?”

Although Valda’s promotions says “(she) will answer questions from the audience” it was in fact Valda who asked all the questions. And asked and asked and asked:

Who is...? does this...? who is the initial...? is she on the other side...? can you relate to this...? what was...? is it you or the person next to you?

It’s seems Valda has picked up her cold reading technique in dribs and drabs rather than from any attempt to study the art, and it really showed, in the low standard of her routine. It was a clumsy mixture of meaningless, new age double talk, channelling and appeals to universal love.

I wish I could say the rest of her act was better, but Valda continued to flounder from person to person, spirit to spirit, rarely getting a ‘hit’ and at times I almost felt sorry for her.

But then came a new low. If you remember, the 20th of October was designated as a “National Day of Mourning” for the victims of the Bali bombing. Earlier in the day, we had all stood for a minute’s silence. At that time I told Richard that if Valda tried to contact the dead from this recent tragedy, I would need to be restrained in my seat. When the moment came, I was too sickened to move.

We got to do this because the spirits just said. Join hands, as the people who have ‘gone over’ from Bali have been trotting around here. They just said ‘it’s a sea of love’ and your love is getting them to be accepted on the other side. with those from the American tragedy.
Valda ended her act by telling us that we should all buy her books.

I’m afraid The Amazing Valda is simply the worst cold reader I have ever seen. I could only recommend she buys and studies Full Facts Book of Cold Reading by Ian Rowland. She is also to be strongly condemned for twisting a day of mourning for a national tragedy into her act. The insult to the dead and grieving of Bali (New York and Washington) was nothing short of appalling and in the worst possible taste.

Do I think Valda really believed in what she was saying? I doubt it but I cannot be sure. If she did, she is in need of professional help.

What did I learn? The only new trick I picked up from Valda was the way she trained the audience to applaud after each ‘reading’, no matter how pathetic it was. We were “clapping to encourage the spirits” she said. The result was to have the hall full of applause every four minutes for so. Very clever Valda. I also learnt that someone who is rotten at cold reading can easily get away with it.

Cold reading is an art anyone can learn and the people who perform cold reading are rightfully thought of as artists. As with any performance art, there are good performers, great performers and then there are those who should just give up and find another outlet for their creativity. Valda, it’s time to move on. You are an embarrassment to the art.

**Another view from Richard II**

Richard Lead offers his thoughts on the same exhibition.

My first impression of this gathering was its cheapness and tackiness. ‘Psychic’ after ‘psychic’ sitting at their booths, with signs “Psychic Readings, 20 minutes $20” hand written, literally with a blue biro on a torn scrap of paper!

The second impression my trained eyes conspicuously failed to observe was the (GST) tax invoices and receipts required to be issued by the ‘psychics’ and other purveyors of merchandise. Section 12-190 of the Taxation Administration Act 1953 requires an Australian Business Number (ABN) to be quoted on all invoices and receipts. Where no ABN is quoted, and the fee exceeds $55 (including GST), the payer is required to withhold 48.5% and remit this sum to the ATO. I doubt if any of the people attending this Psychic Fair were aware of this tax-evasion requirement, just as I doubt if any GST and income tax will ever wend their merry ways to the ATO from this cash-only event.

My third impression was, as always, of the fellow travellers. At a Mind Body & Wallet festival several years ago I spent some enjoyable time toying with a group of Creationists, who had set up shop alongside the clairvoyants. Ignore the Biblical prohibitions against necromancy — business is business. And this Psychic Fair was no different.

Apart from the Scientologists Richard has mentioned, there was the get-rich-quick-with property “Investors Club”. Believe it or not, gentle reader, you can retire wealthy in 7 years, and from today until your dying day you will never pay income tax again. How is this possible? Just buy residential real estate. Every year, buy another residential property. Keep borrowing additional funds against the increasing values of your properties (banks are such sweeties, aren’t they!). Real estate always goes up in value, and it never, ever falls. You will never have to pay for repairs, nor will you have vacancies (tenants are such sweeties, aren’t they!). Land tax? What is that?

It was indeed a day for losers, and my gorge is still buoyant from the experience.

My esteemed colleague Richard was too kind on Valda. She was much worse than that.

**Mind Body Spirit - one more time**

Less than a month was to elapse before, undeterred by the Valda fiasco, Richard S once more sought enlightenment among the spirits.

Every six months, Sydney plays host to the Mind Body Spirit festival at Darling Harbour and members of Australian Skeptics usually end up attending for one reason or another. November 2002 was no exception and this time it was the turn of Skeptics Richard Saunders, Peter Bowditch, his daughter Belinda and subscriber, Chris Guest.

There is much at any ‘psychic’ fair to make a skeptic sigh and this was the second one I attended in the space of 3 weeks. It’s largely the same old clap-trap with clairvoyants, UFO nuts, Reiki, ‘alternative’ health of every description and so on, but this time I did notice an increase in legitimate operators. By that I mean people simply selling all sorts of products, mostly interesting types of food. (Although Peter and I were persuaded at one stage to try out some very agreeable massaging arm-
A few things did however raise my hackles.

We found one stand offering treatment using a Hulda Clark zapper, the very thing the NSW Minister for Health used in his press conference as an example of utter quackery. (See full story of NSW Health initiatives in this issue, also http://www.quackwatch.org/01QuackeryRelatedTopics/Cancer/clark.html)

I felt like an undercover agent as I quickly snapped a photo of the zapper. We moved on to another stand selling Hulda Clark books and treatments. Belinda noticed a bucket of brownish water on the floor, sort of a footbath. “Is that as poisonous as it looks?” she asked the attendant. The attendant did not treat this as a joke and proceeded to tell us that, “All cancers are alike. They are all caused by a parasite. A single parasite! It is the human intestinal fluke. And if you kill this parasite, the cancer stops immediately.” There is no point in arguing with people like this, but it does point up the dangers afforded the unwary from listening to unqualified quacks.

Another stand was that of a homoeopath who, when asked, told us of the wonders of homoeopathic vaccine and how we could bring our children and pets to her for treatment!

Last was an old favourite, the Aura Camera. This device has long been exposed and there can be no excuse this blatant fraud being tolerated at any fair whatsoever. I think the organisers should take a hard look at this ‘miracle of modern science’.

Despite all the ‘woo-woo’ going on, I must say that Mind Body Spirit is actually not as bad as it once was. I think this is partly due to all the legitimate operators jumping on a lucrative bandwagon. I even picked up a pack of very nice tea and some hot sauce!

In my opinion, Mind Body Spirit is worth a visit. It gives the skeptic a ‘hands-on’ experience and a chance to see how people form the other side think. This is best achieved by using good manners and asking only a few questions. The danger lies in trying to argue a scientific or skeptical point and I would avoid this. You could end up in a real ding-dong battle.

Last thing, watch out for the Freudian Slip of saying “Mind Body Wallet” while talking to a believer.
UFOs once again under the spotlight
And then, only four days later, a change of pace.

What’s this? UFOs? Ah yes, it’s all coming back to me. I’m 13 again and wearing my self-make “Watch the sky” t-shirt. Those were the days and I was happy, along with Ian Bryce and other keen skeptics, to revisit them in 2002 as we attended a talk given by Australian UFO researcher Bill Chalker at the Powerhouse Museum in Sydney.

Bill Chalker is no stranger to the Skeptics as I discovered with a quick search of the Great Skeptic CD. But Bill, I’m delighted to report, is not your average UFO believer. Here is a man who actually spends the time to research reports of UFO sightings, rather than just accepting anything that supports the notion. He was even of the opinion that most of the literature on the subject is fanciful.

During his talk, Bill recounted many testimonials of close encounters with UFOs and showed a video he made of interviews in England. I must admit that I became a little fuzzy on when ‘UFO’ meant ‘Unidentified Flying Object’ and when it meant ‘Alien Spacecraft’. He told the audience of about 25, that he thought that Australian Skeptics and CSICOP were more interested in debunking than investigation! I took exception to this and informed him that we never set out to ‘debunk’ as such, rather our aim is to seek information that is rational derived from the evidence.

Bill claimed new data on the 1954 UFO sighting near Nowra by Navy pilot O’Farrell, as the Navy and Air Force have given Bill access to their files. Unfortunately the more significant Joint Intelligence Bureau (JIB) file still remains classified.

We are not holding our breath!

Bill thought this could very well prove it once and for all.

Ian Bryce opined that unlike amateur astronomy, which makes real discoveries every night, UFO investigators have provided absolutely no real results, for all the time, money and effort. To pour in more taxpayer funds would be wasted because zero times ten is still zero.

That is not to say that aliens don’t exist, of course. Extraterrestrial life and space travel are all consistent with science, and may be discovered in the future.

The Skeptics asked lots of questions during and after the presentation and Bill seemed quite willing to answer them and even joked with us over tea and bikkies later on. We laid down the $110,000 Challenge to Bill for any real evidence he might find.

All in all, it was a fine evening and I hope Bill gained a better impression of Australian Skeptics. A review of Bill’s book The OZ Files will appear in the next issue of the Skeptic.

At the end of the day, his talk, entitled UFOs: the Death and Resurrection Show did not present one scrap of evidence to support the idea of alien spacecraft visiting our little planet. But that was not the point of the talk. Bill was keen to have more time and money put towards investigation of the whole question as he thought this could very well prove it once and for all.

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Feature

Should Christians Support Answers in Genesis?

Clearly not, argues this persuasive paper

Answers in Genesis (AiG) is Australia’s leading creationist organisation. Describing itself as ‘a garden-variety conservative evangelical Christian ministry’, AiG depends heavily on the financial and moral support of what could be described as orthodox Protestants, principally Baptists, Presbyterians, members of the Church of Christ and other comparable denominations. Ken Ham, the Australian-born leader of AiG’s American incarnation, has specifically nominated Christians as the organisation’s ‘main target group’.

In this article I argue that AiG is not an orthodox evangelical Christian body and that, given their assumptions, conservative Protestants who support this group in any way may be imperilling their immortal souls. In the first place, AiG adds an unscriptural qualification to so-called ‘salvation by grace’; in the second place, it relies far too heavily on the support of the Seventh Day Adventist cult; and finally, the group is tainted by association with an extremist movement known as Reconstructionism.

Subverting Christian doctrine on salvation

According to Barron (1992), an ‘evangelical’ is ‘a Protestant Christian who believes that spiritual salvation can be received only through personal commitment to Jesus Christ and that the Bible is the fully inspired, infallible Word of God’. AiG leaders claim to subscribe to this credal statement, but subvert it by demanding that ‘true’ Christians also accept the tenets of Young Earth Creationism (YEC).

Upon reading this assertion, Ken Ham and his colleagues will no doubt rend a garment or two and point to the regular statements of belief appearing in both Creation magazine and AiG’s Technical Journal. While, doctrinally speaking, these are perhaps not as pure as the driven snow, fair-minded readers might be willing to grant AiG the benefit of the doubt. However, this is to ignore the thrust and substance of the organisation’s underlying ideology.

Studying the views of extreme
and/or unorthodox political and religious groups has often been compared to peeling the layers off an onion. In their generally available publications and speeches, the groups will often be on their best behaviour. At this level they are trying to attract as much public support as possible. In AiG's case, the term 'public' refers to members of evangelical Christian churches, as the group's essential notions are so far-fetched that not many other people can be bothered with them.

Hence, Creation magazine, the AiG flagship, may seem a bit wacky to the average evangelical reader, but the overall tone is one of pseudo-scientific questioning and reasoned argument conducted in a recognisably Christian context and style of language. For example, many articles are simple and well-illustrated examples of the argument from design: 'Here is the life story of the ant. Isn't it wonderful? It must have been designed' etc. Editors and writers go to some lengths to avoid or downplay the stridency, tantrums and often sheer craziness associated with more expensive publications with a larger 'insider' readership, such as the Technical Journal and books by leaders like Ham.

The pressure exerted on Christians to become card-carrying YECs takes numerous forms, from broad hints up to aggressive demands. An example of the former is Russell Grigg's 'Do I have to believe in a literal creation to be a Christian?' (Creation, June 2001). It is true, Grigg tells us, 'that one can go through the steps of becoming a Christian without accepting or even knowing the Genesis account of Creation and the Fall.' However, this 'minimal belief system' leads to 'a shallow faith that has little root in the Word of God'. So, must one accept the literal Creation to be a Christian? 'The short answer is "No",' says Grigg. 'The long answer is "No, but ..."'

John Whitcomb of Genesis Flood fame is almost as subtle in an interview with Ken Ham. No, Whitcomb doesn't believe that a true, born-again Christian could lose his salvation by failing to believe the whole Word of God, including the literal Genesis Creation story. But when such a Christian appears before the judgment seat of Christ, he or she could 'suffer great loss — not our soul, but our reward'. So all the saints on your cloud will be strumming away on their golden harps while St Peter hands you a tin whistle. It's enough to incite a rebellion...

Ken Ham (1999) himself is completely shameless about this. Having assured us that if someone is 'truly' born again, even if he doesn't believe in a literal Genesis, 'of course he is saved and going to heaven', Ham starts digging enthusiastically away at his own foundations. On the very next page he writes: 'As Christians, we need to answer this question. Is it essential to believe in a literal Fall? Absolutely!' ie there is an 'absolute' need to believe literally in the Genesis account of Adam's fall from grace. And again, later in the book, 'the Fall has to be a literal event in history or sin cannot be defined. Christians have to believe in this account as literal history.'

Now without wishing to labour the point, AiG can't have it both ways. If, on the one hand, Christians don't have to believe in the literal Genesis story, the AiG's raison d'être disappears. If, on the other hand, Christians must believe in the literal Genesis story in order to be saved, AiG can no longer claim to be an evangelical Protestant ministry. This is because their true creed, as distinct from the incomplete one which they publish in their journals, contains unscriptural elements. To the definition of 'evangelical' noted above they have effectively added a requirement that believers accept a literal Genesis.

This stipulation contravenes a whole raft of Biblical prohibitions on additions to and subtractions from the message of scripture. Try, for example, Deut. 4:2 ('Ye shall not add unto the word which I command you, neither ye diminish ought from it ...') or even more to the point here, Gal. 1:8 ('But though we, or an angel from heaven, preach any other gospel unto you than that which we have preached unto you, let him be accursed.')

Regardless of its regular claims to orthodoxy, AiG is in fact a heterodox organization preaching 'another gospel'. This has been pointed out by many practising Christians over the years. Noel Bailey, an evangelical correspondent writing in the Christian newspaper New Life, put it this way: 'I hope things won't get so out of hand that one day we're going to see ideas such as the Young Earth and its running-mate Flood Geology, elevated to credal status and required of us as a not negotiable article of our faith. After all, Scripture explicitly teaches neither.' Ken Ham, Carl Wieland and other AiG leaders have chosen to ignore this sage advice and the unhappy results stinketh in the nostrils of the Almighty.

AiG and cults

Creationist organisations face problems in dealing with cults such as Seventh Day Adventism (SDA) and Christadelphianism as the members of these churches are generally enthusiastic supporters of a literal Genesis. Ronald Numbers, author of The Creationists, describes some of the contortions performed by leading American Young Earthers as they tried to escape entanglement with Adventists, not altogether successfully. John Whitcomb (he of the 'heavenly rewards' – see above) was particularly anxious to distance the creationist revival from SDA influence, so I wonder what he would make of the current Australian situation.

Dr Carl Wieland is a mainstay of Australia's creationist movement and is the current editor of Creation magazine, and his attitude towards cult support for AiG is most intriguing. Wieland joined the now-defunct Evolution Protest Movement (EPM) in August 1975 and followed up with a letter to New Life in which he promoted books by Walter Lammerts, a lifelong disciple of SDA creationist George McCreary Price. Incidentally,
Should Christians ...

Wieland claimed in this letter to be a voting member of the American Creation Research Society (CRS). Presumably his MB BS degrees were regarded as equivalent to an American Master of Science or better, but is a general practitioner like Wieland really a ‘scientist’, which CRS voting members were supposed to be?

Wieland remained a member of the EPM until its demise in 1979, making a number of donations which, by the standards of the time, were quite generous. When the EPM folded, Wieland’s Creation Science Association, a precursor of AiG, happily accepted a donation of $100 from the EPM ‘at the express wish of Mr John Byrt’, the late editor of the E.P.M. News Gazette.

Byrt was a Christadelphian and references to bodies such as the Christadelphian Youth Group occasionally appeared in EPM publications during the period of Wieland’s membership. It seems likely, therefore, that Wieland was fully aware of the EPM’s cultic links during the late 1970s and yet chose to remain a member of the group and even to make voluntary donations to it. Among evangelicals this is usually known as ‘yoking yourself unequally with unbelievers’ and is a big no-no.

In later years, Wieland’s former EPM membership seems to have slipped his memory. He notes in a letter to New Life that groups such as the EPM ‘were united primarily by being against evolution, regardless of a member’s actual position on scripture — as I understand it, even J[ehovah’s] W[itnesses] and Christadelphians could quite comfortably be in membership.’

Indeed. As you once were, Dr Wieland.

As for the AiG’s attitude towards Seventh Day Adventism, this can be dealt with in short order. A clear majority of conservative evangelicals denounce this church as a cult, but Wieland and other AiG writers appear to make no distinction whatever between SDAs and orthodox evangelical churches. Dr Jerry Bergman, a regular contributor to the Technical Journal even describes them as ‘a conservative Protestant church’ (TJ 1995). Ellen White’s claims, her identification by Adventists as the ‘Spirit of Prophecy’, the doctrine of the Investigative Judgement, the distortion of orthodox teaching on baptism and the Sabbath, the doctrine of ‘soul sleep’— does AiG hold these teachings to be authentic Christianity? Evangelicals and others have repeatedly warned AiG about Adventism’s leading role in the development of YEC thinking, but such admonitions are invariably ignored or brushed aside.

One of the reasons advanced by AiG for changing its name from ‘Creation Science Foundation’ in 1997 was that it did not want to be confused ‘with cultic groups like “Christian Science” and “Scientology”’. Why, then, does the group take such a permissive attitude towards the SDA cult?

Every few months, AiG publishes a ‘ministry calendar’ showing where and when its speakers will be appearing around Australia. Most venues are local evangelical churches, mainly Baptist, Presbyterian and the like. AiG sells a lot of literature at these presentations and I imagine they pass around the hat, too.

SDA churches are a very important part of the AiG itinerary. The ministry calendar frequently lists five or six such venues, but the April 2002 schedule nominated eight, and in the February 2001 list there were eleven. In a random count of several such calendars I found that SDA churches were outranked only by the Presbyterians.

It must be assumed, therefore, that AiG values the financial support of Seventh Day Adventists more highly than it values the ‘Word of God’. Conservative evangelicals should take note and act accordingly.

AiG and Christian Reconstructionism

Christian Reconstructionism is formally defined as ‘a contemporary Christian movement that aims at the eventual restructuring of society in accordance with the guidelines of the Bible, especially the first five books of the Old Testament.’ However, I prefer to define a Reconstructionist as the result of inter-breeding between a Christian and Godzilla.

Reconstructionism is not generally regarded as a heresy per se, but several Christian authors regularly refer to the ‘overwhelming unpopularity’ of the movement’s key features in the contemporary evangelical world. I would refer readers to Barron’s Heaven on Earth? for a full discussion of these features, specifically ‘theonomy’, ‘postmillennialism’ and ‘presuppositionalism’. Full-blown Reconstructionists such as Rousas Rushdoony, Gary North and Greg Bahnsen are truly a wonder to behold. Consider for a few spine-chilling seconds the implications of applying Mosaic law in contemporary society. Let us take, for example, the question of the death penalty. As Clarkson (1994) explains, ‘the Biblically approved methods of execution include burning …, stoning, hanging and “the sword”’. Gary North, the self-described economist of Reconstructionism, prefers stoning because, among other things, stones are cheap, plentiful and convenient.’ Readers may be able to think of some other Mosaic laws they would prefer not to see applied today. They may even prefer to live in a democracy rather than a Reconstructionist theocracy, but everyone to his own taste.

What has this to do with AiG?

Reconstructionists can be located along a kind of spectrum, depending on just how much of this nonsense they’re prepared to swallow; (the broader movement of which they form a part is often called ‘dominion theology’). As far as I know, no AiG leader has specifically endorsed the movement, but as the Good Book says, by their fruits shall ye know them.

To begin with, AiG and its predecessors have published articles by both Rushdoony and North, and Ken Ham has recently referred approvingly to work by Greg Bahnsen. The group also used to sell a publication called The Journal of Christian Re-
construction. AiG has published other items by known Reconstructionists including John Lofton, a colleague of Rushdoony's; and Carl Wieland has drawn on the Reconstructionist Christian Economics newsletter, produced in Australia, and has advertised its address. Francis Schaeffer, an influential writer in the area of dominion theology, is quoted frequently in AiG literature.

Items appearing in AiG publications are replete with references to 'dominion', 'subduing the earth', 're-laying the foundations' and other dominionist and Reconstructionist catchwords and phrases. A full listing of these would be a tedious exercise, so I will content myself with two observations. Firstly, while the term 'Reconstruction' is not mentioned directly, Reconstructionist philosophy is frequently presented in all its naked glory. For example, in a discussion of abortion (Prayer News, May 1998), Jonathan Sarfati specifically says that 'Genesis contains the origin of civil government' and appears to infer from Genesis 9:6 that the penalty for abortion should be death. This is not quite as extreme as Gary North, who argues that women who have abortions should be publicly executed 'along with those who advised them to abort their children', but it's right in the ballpark.

Secondly, regular use of the terms 'presupposition' and 'presuppositional' in a Christian book or article often indicate dominionist tendencies on the part of the author. Presuppositionalism is a form of evangelical apologetics (ie reasoned defence of the faith) which argues that 'all of a person's beliefs are governed by that person's presuppositions regarding God, humanity and nature.' This form of apologetics is opposed to 'evident-ialism' which seeks to convert unbelievers 'by presenting historical, psychological, sociological, scientific or other forms of evidence.' Basically, then, people like Rushdoony and North argue that 'the truth about God has already been placed in every heart' and hence does not require any defences based on human reason.

The writings of some AiG authors are littered with forms of the word 'presupposition' eg, Ken Ham (1999): 'People are not stupid. They are just being consistent with their presuppositions ... [People] don't think in a Christian framework any more. Their presuppositions are different ...[Child abuse] accelerates these existing presuppositions ...' Besides Ham, Jonathan Sarfati and Carl Wieland regularly produce similar 'lists', all of them reeking of a Reconstructionist approach. Wieland even specifically criticises 'evidential-ism' in his own musings on abortion policy.

Conservative Protestants should be aware that AiG seems strongly sympathetic with a radical minority viewpoint within Christianity, one which is often actively hostile towards many areas of the wider Christian community, especially charismatics. Is this the kind of body faithful evangelicals should be helping with their funds and prayers?

Conclusion

The Answers in Genesis organisation depends heavily on the good will of conservative evangelical Protestants for financial and moral support and ultimately for its very survival. In my view it does not merit this support: it is demonstrably unorthodox in doctrine, it is far too dependent on the support of at least one cult, and it is infected by the Reconstructionist virus. Given their theological assumptions, evangelicals concerned for their long-term future would do well to direct their resources elsewhere.

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A team from Australian Skeptics (Alynda Brown, Richard Saunders, Ian Bryce) participated in a demonstration and preliminary test for the Challenge.

The claim was made by Mr Michael Peterson of Sydney, on behalf of a Mr Bhadra Sen; that he can tell people about themselves, and diagnose illness; has a long record of instantaneous cures for many ailments, including sleepwalking, paralysis and terminal disease and was regularly called to hospitals, to cure patients where normal medicine was powerless.

When I indicated that it is quite common for “psychics” to be able to tell subjects about themselves, and suggested that a book on cold reading might be a good start, Mr Peterson wrote:

I am not so simple minded that I cannot detect a fraud, and your calling someone whom you know nothing about a trickster is offensive and demonstrates a closed mind. Are you afraid that the Skeptics might actually have to write out a cheque? How can anyone prove their ability to your organisation if you are too closed of mind to afford them the opportunity! IS YOUR ORGANISATION GENUINELY SEEKING PROOF OF THE SUPERNATURAL OR ACTUALLY TRYING NOT TO FIND IT?

How could The Skeptics ignore a challenge like that? But we needed a specific claim, and Mr Peterson suggested:

A way of testing the authenticity of Mr. Sen’s ability is to place people before him who he has never met and wait for him to tell them something about themselves which no one could possibly know. These persons could be your panel members. They would be told something very specific and not something general that could apply to many people.

While not totally rigorous, this sounded like a good basis for a demonstration of abilities, and even a preliminary test. It was agreed that if the claims were substantiated, AS would be very interested and would arrange a formal test for the $100,000.

We had been asked to avoid meat, fish, eggs, cheese and alcohol on the day of the test, which we duly did. At the venue, we were asked to leave all leather objects “in another room.”
This was merely through a brick arch about 3 metres wide; it is difficult to see what shielding effect could be provided. In any case there was a wine rack containing about 30 bottles within 2 metres of the test, which evidently posed no problem.

Mr Sen is a Fijian of Indian descent, who has lived in Australia for 20 years. It later transpired that he is Mr Peterson’s father in law.

Mr Sen prepared with a little ritual involving two glasses of water, incense sticks, coins, and a statue, which were shaken or passed behind his body in various ways.

He started the reading with Alynda. He asked for her given names and her mother’s given names, then rubbed a white stone on her palm to outline the creases in the skin.

Mr Sen proceeded to make many statements about Alynda:

- You have a folding pain in your left foot? No.
- Then in the leg? No.
- Lower Back? No.
- Upper Back? No.
- I see you nearly drowning? No.

In explanation of the misses, Mr Sen objected that Alynda had eaten eggs today, which was throwing off the reading. She said she in fact had eaten nothing.

The reading continued:

- You will be married 3 times and have 5 children.
- You DID nearly drown. No, our family were all taught to swim very young, and I have never been in difficulty.
- Or accident in car? No.

A fall. Yes many times.

(Alynda explains: That is the classic cold reading technique. He had finally scored a hit and created a framework where I was expected to project my own image. This is why readings appear to be so real. The memories that are triggered by these suggestions are in fact very real – to the subject of the reading. The cold reader has no idea what image the subject is going to project unless they start talking. At this point he waited for me to expand on the hit, as this is what a believer would certainly do. Unfortunately for him I was uninterested in telling him anything – I wanted to hear what he had to say. Remember the claim from Mr Peterson?)

...wait for him to tell them something about themselves which no one could possibly know...

(So I waited for him to expand, since I have fallen many times and I had no idea which time he had in mind. In fact as a Judo player I have fallen literally thousands of times but I very much doubt that this was the type of falling he was talking about.

By this time Mr Sen became a bit frustrated and complained by way of explanation:

All you can say is no no no.

(I replied that he was asking questions and I was answering them honestly.)

Mr Sen then told us about his well-known medical diagnosis and healing powers. Then tell me what I have, I asked.

- High blood pressure? No.
- A migrainy thing? No.
- Tummy trouble? No.

Then it will come!

(At the time I was not wearing a wedding ring and I’m often told that I don’t look my age. In fact I’m often mistaken for being in my middle twenties. Menstrual cramps and headaches are common in young women and often settle down after they have had their first child. When he told me these symptoms I realised that he was giving me the reading of a young(ish) woman in her twenties who has had no children and no commitments.)

You have a dark or red mark on your right side? No.

What do you have?

(he asked in frustration. All the family looked at me expectantly. Whooping cough, I replied. Mr Sen has not even come close. He then
declared that whooping cough was a natural disease and he couldn’t do anything about that.)

Next test: Ian

Having scored about 15 misses and 1 (generously) hit with Alynda, Mr Sen then gave Ian a reading, starting by examining his right palm.

On being asked for the four names, I asked “I thought you can tell things about me, what do you think my second name is?”

I can only read what’s in your palm.

You have back pain? No, not at present.

You are a rich man? Afraid not.

Kidney trouble? No.

Bladder? No.

You have a choking feeling when sleeping, its punishment from god. No, nothing like that.

You have high blood pressure? No. Then you will in the future!

Oh dear, your life line is very short, you will develop lots of problems after age 40.

I asked:

Can you tell how old I am now? No.

I am already 53, so that’s a worry!

Mr Sen then turned his attention to my left hand. This gave even worse news.

You will have an accident in a few days. Be careful!

(Well if I have since had an accident, I did however have a bad headache at the time, which he failed to detect. I count 11 misses and 0 hits.)

Third test: Richard

Turning to Richard, Mr Sen commenced his diagnosis. A summary follows:

You have tingling in foot? No.

Back pain? Not NOW, everyone has it at some time.

Then it has happened, or will happen!

You have bad saliva coming out? No.

You hear constant noise in ears? No.

Then it’s going to happen!

Three times gonna married? Not yet, but if you say so.

You fall down off an animal? No.

You nearly drown? No.

Then be careful!!!

You spend a lot... You are very down to earth. (our Prez????)

You believe in god? I neither believe nor disbelieve.

Your palm here shows some yes, some no.

Alynda was not slow to point out “He just told you that”.

For Richard we counted 9 misses and 0 hits.

Follow up

A common theme was the need for each of us to pray to a god. When questioned about which god, Mr Sen advised that they were all the same, but Shiva was the best. We were informed that the Hindu Ramayana is 10,000 years old and hence more authoritative than the 2,000 year old Christian bible.

The readings over, Mr Sen again performed some rituals with trinkets and stubbed out the incense sticks.

All present agreed that there was no evidence today of any supernatural ability.

In the follow-up discussion, Mr Peterson said he could not understand the failure, as Mr Sen is usually very accurate, such as in describing birthmarks and illnesses. Mr Sen himself gave several comments on the poor result:

• you have eaten eggs today (see above);
• it was because we kept saying no, no, no (now that’s the truth!);
• because we don’t pray to god.

Mr Peterson was already starting to come up with his own explanations:

• there was a barrier between us and Mr Sen...the well known Skeptic Effect;
• we were not receptive to the vibrations, God, psychic emanations...whatever.

Evidently he was more accustomed to a type of subject who would give him plenty of feedback, expand upon hits, and pass over misses.

We were able to recognise many examples of cold-reading techniques used by Mr Sen:

• Standard readings for observed gender, age and socio-economic status (eg Alynda).
• Using a generalised tense (eg Gonna married 3 times, I see you drowning).
• Waiting for free comments and elaboration.
• Asking that we be more forthcoming in our response (eg All you say is no no no!).
• Transforming a MISS into a future HIT (eg No? then you WILL!)
• Broadening the predictions when desperate (eg A migrainy thing, tummy trouble).
• Rewriting history (eg insisting that the subject DID nearly drown, after she denied it).
• Adjusting a failed prediction (eg to Alynda: Pain in your foot, leg, lower back, upper back...; and, Nearly drowned, No, then car accident).
• Claiming credit for what the subject just said (eg You believe in god? I neither believe nor disbelieve. Your palm here shows some yes, some no.).
• Turning a failure into a timely warning (eg to Richard: You nearly drown? No? Then be careful).

In fact by answering his questions honestly and not prompting him with more information, we were giving him a unique opportunity to demonstrate real paranormal abilities. Under these conditions he scored (at most) ONE “hit” out of about 36 specific statements.
I would normally want nothing to do with yet another report of a weeping statue, but when this ‘miracle’ is in my own backyard and creating a media feeding frenzy then it’s difficult to ignore. My telephone started ringing on September 9 and thus began my 2-day involvement in radio and television interviews for stations across Australia and overseas.

September 9 was the day *The West Australian* ran a follow-up story about a weeping statue of the Virgin Mary, on display at Our Lady of Lourdes Church in Rockingham, Western Australia. The fibreglass statue was purchased by Patty Powell for $150 during a holiday in Thailand eight years ago and now it is packing the believers into the church. Over 3,000 people attended during a two hour viewing period at the weekend. Patty told the media that the statue started to cry rose-scented tears during the Feast of St Joseph and then again at Easter. Apparently, it has been weeping continuously since August and, I suspect, so have many Skeptics in Western Australia.

**Precedents**

The media people don’t seem to be aware that weeping statues have been around for a long time and this particular ‘miracle’ is certainly not unique in Australia.

In 1994, a statue of Our Lady of Fatima started to cry in Rooty Hill, near Sydney. Sam Scevola bought the statue in a local antique shop and his Mum collapsed in a heap when she witnessed the holy sobbing. Apparently, nobody told Mrs Scevola that the statue was supposed to make everyone feel better.

Of course watery tears or oily tears are certainly not as dramatic as tears of blood which have also been shed by many a holy statue. In 1997, a statue in Benin, Africa shed bloody tears, leading one journalist to speculate that this was one of many signs of sadness appearing around the world at that time. Presumably, his willingness to believe this nonsense was another sad sign.

In 1994, Mary Murray, a retired postmistress from Grangecon in County Wicklow, Ireland, also had a statue of the Virgin Mary which wept bloody tears. Apparently, Mrs Murray welcomed travellers from 8.00 am until 11.00 pm every day, presumably until a more spectacular statue was found elsewhere and interest in Grangecon dropped off.

In 1987, blood flowed from the ‘heart’ of a more sophisticated statue of Christ located in Parma, Italy. The liquid was examined by experts who confirmed that it was indeed blood. A local police officer, Giuseppe Melchiorre, proclaimed:
I felt a shiver run up my spine and broke into a cold sweat. I staggered out of the Abbey and, for the first time in my life, I prayed. I am now a firm believer and attend Mass.

Clearly, this statue was doing the job it was designed for.

In 1994, another Italian police officer found a statue of Christ on a refuse tip and it also bled profusely but not merely from the eyes or heart. Not to be outdone, this particular statue bled from the eyes, head, hands, breast and feet. Apparently, the statue was confiscated by the Bishop of Castelmar di Stabia who, presumably, thought it was a load of old rubbish.

If you are impressed by the above accounts, then contemplate the following. In 1995, a statue of the Virgin Mary was purchased in Medjugorje and taken to Civitavecchia, near Rome. The family, whose son suffered from poor health, reported that the statue was weeping red tears which were later analysed and found to be real blood. Unfortunately, there were no reports of DNA testing of the blood from the statue. Neither were there any reports of DNA testing of family members for comparison — a case of overlooking the bleeding obvious.

Other cases of weeping and/or bleeding statues have been reported over the years and a weeping statues archive can be found at: http://www.mcn.org/1/Miracles/weeparchive.htm

But I digress

Meanwhile, back in Western Australia, the media had already spoken to the Parish Priest, Father Henry Walsh; he had no doubt that the weeping statue of Rockingham was authentic. He proclaimed that:

Miracles are something beyond the power of nature.

Catholic Archbishop, Barry Hickey thought the statue to be:

A truly remarkable phenomenon.

He didn’t judge it to be either a natural or supernatural occurrence. Barry Hickey told the local Catholic newspaper, The Record, that:

The sight of Mary weeping had already had a powerful spiritual effect by calling people back to God.

What more could you ask for?

Media comments

At the time media representatives first asked me for my opinion on this supernatural event, I had not actually seen the statue. Predictably, my comments were along the lines that:

This is not an unusual report.

There is no evidence that supernatural miracles have ever taken place.

The tears could easily be analysed.

It will probably turn out to be a natural phenomenon or a simple trick.

I would not like to see people exploited in any way by the sale of tear-drops or visitors being charged an admission fee to view the statue.

Could I have another chocolate biscuit please.

Whenever the interstate or overseas media asked if I thought that the sick should fly from elsewhere to see the Madonna, my reply was affirmative if they could afford it and were both happy to make the journey and able to do so. After all, I suggested, even if the weeping statue doesn’t actually heal them, a visit to Western Australia to experience our beautiful beaches, vineyards and restaurants would undoubtedly make them feel a whole lot better. I was not paid by the WA Tourism Board to make this comment. It is simply a reply to those wise men from the East who have suggested that the Madonna stops weeping only when it is taken out of Western Australia.

Comments about the statue from talkback radio listeners were generally of a skeptical nature, with a number of innovative suggestions about how the ‘tears’ might be produced. A professional fibreglasser suggested that the material might be breaking down to form oily material on the outside of the fibreglass. Another listener said that their freezer had scratches on the side, producing “teardrops” of water. That particular listener asked, “Are we going to go and worship this freezer?”

Perhaps not but, had Jesus been frozen to death, there might be large numbers of the faithful wearing freezers around their necks today instead of crosses.

Naturally people from the media continued to ask me if I had actually seen the statue and I had to confess that I hadn’t although, by the second day of media questioning, I had decided that I simply had to make a pilgrimage to Rockingham the next day.

Off to Rockingham

I arrived at Our Lady of Lourdes at about 11.00 am on Wednesday and frankly, I didn’t expect to find any activity at all around any church midweek. In fact, the car parks were reasonably full and there were groups of school children making their way into the church.

Signs outside the church indicated that the weeping statue would not be on display until Friday and over the weekend. I wandered over to the church and peered inside, noticing immediately that, in addition to all the school children, there was a group of people close to the front and, lo and behold, there was the statue.

Another surprise awaited me in the form of a meeting with Patty Powell herself. Patty turned and beckoned to me and we walked outside to chat. She greeted me in a very friendly way and I was impressed by her warmth and her genuine belief that the weeping statue represented a genuine miracle. She said that she recognised me, from my television interviews, and she suggested that God had sent me on that particular day since the statue had only been placed on display temporarily so that children from the neighbouring primary school might come to see it.

Patty was quick to reassure me that the ‘tears’ were not being sold to the public and people were not being
charged any admission fee for viewing the Madonna. Indeed, she told me that a portion of the donations made by visitors was being forwarded to the sick and needy in Thailand, where the statue originated.

By this stage, I was convinced that Patty would not be the kind of person who would deliberately perpetrate any kind of fraud for financial gain or otherwise. The atmosphere within the church was emotionally charged with many people praying, under the watchful eye of Father Henry Walsh.

The scene at the front of the church was one of serenity and total belief and I would want to wish each and every worshipper well if their personal belief provided them with a feeling of well-being.

I was somewhat dismayed by what I witnessed at the rear of the church where several groups of very young primary children were being ushered in to witness what one of their teachers described to them as a miracle. I found it difficult to imagine what visions were being conjured up in the minds of those youngsters.

As a professional educator, I find any practice whereby innocent children are served doses of supernatural nonsense by well-meaning adults to be an appalling abuse of the privileged position those adults hold. The fact that those teachers held their own religious/supernatural views should not give them the right to indoctrinate children who have a strong tendency to believe anything their teachers might tell them.

Testing

But I digress yet again. Back in Perth, the media had obtained ‘tear’ samples and these were duly analysed by Doug Clarke from Murdoch University who reported that the rose-scented tears originated from a recess inside the head of the statue. They turned out to be little more than fresh vegetable oil with rose fragrance added.

But how did those oily tears flow when they were needed? In 1997, Dr Karl Shuker explained (The Unexplained, Carlton Books Limited (1997) ISBN: 1-85868-384) how you can create your own weeping statue by following these simple (modified by me) instructions:

1. First buy a hollow statue, preferably made of plaster of paris or ceramic material.
2. Paint or glaze over your statue to give it an impermeable coating.
3. Make a small hole in the top of the statue where it will not be readily visible or arrange to cover the hole with some suitable material.
4. Fill the statue up with a vegetable oil to which you can add the fragrance of your choice.
5. Carefully scratch away some of the glazing or paint from on or around the eyes but don’t make these scratches too obvious. Holes do not have to be drilled through the eyes.
6. ‘Tear drops’ will slowly leak out of the scratches and you will have people declaring that they are witnessing a miracle.
7. Wait until the crowds gather and then start collecting your tax-free dollars.

Conclusion

In conclusion I would say that we can expect to hear very little more about this particular fake from the radio and television stations. As we all know “Statue is fake” is not likely to be the kind of headline the media would want to run with.

A report that the statue was a fake was initially published at the bottom of page 3 in The West Australian on September 11. This was followed by a surprising report from Steve Butler on September 13 which stated explicitly that a Murdoch university chemist had found the ‘tears’ to consist of a mixture of fresh olive oil and a type of rose oil. In fact, Doug Clarke had identified both the composition of the tears and their source. Amazingly, Steve Butler concluded that the “Miracle” tears defied the university tests.

I am personally disappointed that this farce is associated, in some way, with Patty Powell. I gained the impression that she was honest and sincere and she assured me that the statue was genuine and that no trickery was involved. Hard evidence proved otherwise and she has refused to allow further tests on the statue.

I note that the fastest growing religion in Australia is Witchcraft while other religions are in decline. Monsignor Peter Elliot said, in the Melbourne Herald Sun:

I think it reflects the collapse of values and sanity in our society that this mishmash of superstition and fraud is to be recognised.

I must stop writing now. It’s time for me to bash my head against the old brick wall again.

Late breaking news

The Catholic Archdiocese of Perth will officially investigate the statue, according to Archbishop Barry Hickey.

The three persons authorized by Archbishop Hickey to conduct the investigation are Fr Kevin Long, principal of St Thomas More College at the University of WA; Dr Michael Shanahan, surgeon and former secretary of the Catholic Doctors Association WA; and non-Catholic scientist Dr Thelma Koppi, lecturer in microbiology at the University of Western Australia, who can’t be accused of having a vested interest in the outcome of the inquiry. (Surely a proper scientific investigation would require that none of the investigators could be so accused!)

The archbishop has stated that the statue must not be damaged in any way in the course of any examination. He has extended an open invitation to the scientific community for any input as to why this statue may be weeping.
There is a strong tendency towards polarisation in the religion/science debate, probably because people care deeply about the issues. After digesting the Spring copy of *the Skeptic*, I decided there was a case to be made for the many middle-of-the-roaders that say: “I am not religious but I do believe in God.”

Is the statement reasonable? People who make a statement like that are not postulating a father-figure or counsellor, merely an architect or composer of epic proportions. (I will observe the traditional male convention, as any contrived gender solution is cumbersome).

Science has grave doubts about the existence of a universal composer. Physicists speak about the Big Bang as autonomous, coming into existence spontaneously as subatomic particles have a habit of doing in the quantum world. Post-modernists can’t see them and therefore don’t believe in them, let alone a composer, yet science has not categorically disproved that he exists. God has a habit of bowing out backwards like the Cheshire Cat, leaving only his smile behind — a kind of infinite regression. We have followed that smile a fair way over the centuries, and few would be happy to go back to a mediaeval view of the universe. In my opinion, *The Discarded Image* was the best thing C.S. Lewis ever wrote. Anyone wanting to get into the mediaeval mindset should read it and I doubt if even the most fervent creationist would want to live under that model!

The idea of a “fat controller” interfering every now and then, began to erode as soon as religious control showed signs of slipping. An orchestral-type composer behind the order and grandeur of our universe is a deist argument, whereas anthropomorphic arguments as to what ‘he’ is like — are usually theist. Explicit argument between the two goes back to David Hume (1711–1776) and, more covertly, probably much earlier. Theism is becoming less and less plausible as science provides better answers. Deism, without its aesthetic eighteenth century overtones is still countenanced by some scientists and by the unconvinced who are aware that science is fallible and that conventional religion has almost zero credibility.

Many a-religionists would be
happy to call themselves deists, linking hands with animistic communities. Theists retain elements of animism, but have turned monotheism into an art form. For deist-type thinkers, belief is not formalised or systematised. It may be nominal in deference to inheritance or family ties. It may be aesthetic, paying tribute to centuries of art and music, or it may be societal, paying lip service to the cultural code. It may be overtly pluralistic and can encompass a quasi-Olympian pantheon.

Answers from science

Even liberal theists are at odds with some of the more unsettling answers that come from the halls of science. Deists are less troubled because they have less intellectual baggage. The not-religious—but believe in God group can assimilate the laws science has discovered without quibbling about less controversial matters like the age of planet Earth or the fact of evolution. They are more interested in mitochondrial Eve than in Adam’s Eve. However they tend to be skeptical of the physicists’ answers to the Big Questions and might take a more optimistic view of the ‘anthropic’ argument than most of the professionals do. The favoured view of science appears to be that the “just right” conditions for our planet are accidental, whereas a deist might see them as indicative of initial planning. Are they falling into the Paley trap having rejected the god-the-fossil-planter Palaeo trap? And even if there were a (not necessarily hominid) composer behind the Big Bang, is it possible to plan anything without a mind?

Fifty years ago, Sir James Jeans likened the universe to a great mind. Modern physicists veto the idea of a composer with a complex mind, claiming that the universe was necessarily in an utterly simple state at the moment of the Big Bang. (The moment before doesn’t actually exist if there was no time before that happening, and St. Augustine agrees with modern physicists that there was not). A super-complex mind that could design a universe that would generate life is an attractive idea, and scientists often express surprise at the elegance and complexity of the laws of the universe. Not so surprising is that the surprises turn out to be ones we can understand (or some of us can). But even if there are fundamental questions that go beyond the human ability to understand, a closed mind will not help.

As for the Russian doll argument of infinite regression, it seems to be ingrained in universal law. A megacomposer might indeed invent a scenario where subatomic particles divide ad infinitum, like the fleas with smaller fleas to bite ’em. Did you know that in China in 600 BC it was believed that people began as fleas in the fur of a creator named Phan Ku? Contrast that with quantum holograms, the finding that we emit particles, in the form of waves, out into the far reaches of the universe (SBS David Suzuki’s Nature of Things). Macro-objects are not what they seem (although we are more cautious than Bishop Berkeley about this) and maybe a master planner who can make designer-worlds is also capable of regressing himself out of range of theoretical physicists!

Justification for holding a deist position can be sought in the “unknown hypothesis”. Deists are vitally interested in science, not just because it might underpin their beliefs but because of a devotion to empirical truth. They are impatient with revelation and miracle and they distrust the exclusiveness and intolerances of theism.

Degrees of belief

Philosopher, Peter Forrest has made a case for anthropic theism against atheism based on best explanation apologetics. He defines anthropic theism as belief in a “personal deity” and makes a further distinction by using the term ananthropic theism to mean belief in an impersonal god. Regarding agnosticism, he says: “Likewise, I submit, there is an intellectual strain in suspending judgment as to whether there is a God, at the same time as adopting the attitudes and values appropriate for theism.” (Forrest, 1996). I take this to mean that we submit to cultural theism for ceremonial purposes out of courtesy rather than commitment.

While understanding that theistic ethics are woven into our culture, I can’t help thinking that ananthropic theism is a fairly narrow belief. It does not support the anthropic argument when it is used to underpin purpose, yet it is theistic. Forrest’s book is about theism rather than deism but I imagine there are ananthropic deists as well as anthropic deists. If a composer-god planned at the outset for life on earth, human life appears very late in the piece as a rather insignificant event in the whole panorama.

Agnosticism

A true agnostic sits on the fence like Sextus Empiricus, a Greek (or Roman) who argued the pros and cons but believed in suspending judgment. A lazy agnostic does not exercise his or her brains and is actually an agnostic by default. But there are also conscientious agnostics who feel that there is no other position they can support because of the lack of human knowledge as the term signifies.

The atheist agenda

Atheists have changed their tune in the last century from a belief that science would find answers in the future to a realisation that some questions might well be unanswerable. The atheist’s position has become insecure and this has resulted in a trend towards agnosticism. Atheists find some evidence in science as do deists, but they use it in the opposite way, aligning themselves with the hardline coterie that feels safe from the “unknown hypothesis” looking over the shoulder.

Ideas and words

Taner Edis (Review by Rob Hardy) claims the universe is a place of random happenings. It certainly looks that way the more science finds out, but are we looking through a lens distorted by current understanding? The anachronistic deity proclaimed by worshipers is distasteful.
too many of us. He is a petty, paternalistic, partisan god, wooing his adherents with unprovable promises and warring with hereditary enemies. He is concerned with maintaining the status quo. Strangely, like the gods and goddesses on Olympus, he is remarkably like us! Montesquieu has said, ‘Si les triangles faisaient un dieu, ils lui donneraient trois côtés’ (If triangles created a god, they would give him three sides). This anthropomorphism offends us and we rush to the opposite extreme.

The problem is that most of what we think is inchoate and often difficult to put into words. Barbara McClintock won a Nobel prize for her research on ‘jumping genes’ but she also worked out a mechanism to explain the way ideas come before words. We are all aware of thinking in pictures and using words that are often distorted thoughts, manicured for presentation. Rational thought is obviously governed by state of knowledge, but there are thoughts so nebulous that they regress towards vague feelings. Are we to say that these ‘gut’ feelings are always wrong? Science actually says otherwise.

References:


As mentioned in a previous issue, Australian Skeptics is a major sponsor of the Chinese Dinosaurs exhibition, being mounted by the Australian Museum in Sydney until Feb 23, 2003. “Chinosaurs” is the largest such exhibition ever to visit Australia and it will later tour other states and New Zealand. Specifically, we are sponsoring four of the many feathered dinosaurs newly-discovered in China over the past decade, that demonstrate the evolutionary transition from dinosaur to bird. Our main purpose is to let people, particularly children, see the evidence that underpins this exciting area of science and to expose creationist rhetoric about the issue for the specious drivel it is.

It must be having an effect because the main creationist mouthpiece in Australia, Answers in Genesis (AiG), has responded with their usual obfuscation and disinformation. The following comes from a regular email message service they send to their unfortunate cash cows.

**Dinosaur birds ... again!**

A display that has appeared in many countries is currently in Sydney. Featuring a melange of ‘mythical’ caricatures, this latest display, sponsored by the Australian Skeptics, is supposed to ‘prove’ dinosaur-to-bird evolution, and silence the creationists. Although many evolutionists are working themselves into a lather over this, there is nothing new, and many of these claims have been refuted by AiG on previous occasions. See Dr Sarfati’s article and other relevant links at ...

As would be expected by anyone with even a passing knowledge of creationist propaganda, there is hardly a word of truth in the whole thing. Many of the specimens on display have never before left China; there's nothing at all mythical about the fossils; we would not be so ambitious as to think that we could shut creationists up (we prefer to show them up by presenting evidence); none of the claims about feathered dinosaurs have ever been refuted by AiG (explained away, perhaps, but not explained). As for Dr Sarfati, we understand that in his previous manifestation he worked as an industrial chemist. Not to denigrate that worthy profession (we number several among our subscribers), but when an understanding of biology, geology and palaeontology is required, an industrial chemist is not the first expert who springs to mind.

Engaging in time-wasting rhetorical discussions with these cranks might be all good fun, but we derive far more satisfaction from seeing the hordes of children visiting the Australian Museum during the exhibition, and hearing their expressions of wonder at what is displayed. That brings the hope that an early exposure to real science will open them up to a world of wonder and excitement and will stimulate their inquiring minds to withstand the blandishments of false prophets.

**Sponsorship Now Official**

Richards Lead and Saunders hand over the sponsorship cheque to Museum Director, Mike Archer
Anyone interested in the negritos who allegedly existed in Australia before the Aborigines and allegedly painted the Bradshaws should think of securing access to the next couple of issues of *Quadrant* (even if they dislike its political tone). In the last issue, Colin Groves and another scholar responded forcefully to the Windschuttle & Gillin piece. Now Tim Gillin has responded in turn, denying the validity of some of Groves’ points and citing some more material by Harpending & Eller — including new linguistic arguments. These latter are partly based on Ruhlen’s near-fringe ideas and are thus much less persuasive than is suggested. My further response is on its way!

On 14/10 there was a televised documentary on Grahame Walsh’s ideas, largely sympathetic but with some skeptical commentary. I suppose that if Walsh were less obviously committed to his own rather dramatic interpretation of the data he might have more fruitful contact with professional scholars; some other independent scholars such as Robert Bednarik seem to manage this. But it is true that some people might be discouraged by the political uses to which positions such as Walsh’s — or that of Windschuttle & Gillin — might be put by those with axes to grind (or with a limited grasp of what is actually implied by such positions).

In my view, Aboriginal thinkers and organisations could help their cause by not regarding (or appearing to regard) traditional ‘dreaming’ accounts describing the creation of their peoples in Australia as factual and therefore rejecting the strong anthropological and archaeological evidence that they arrived by way of migration around 60,000 BP or earlier. Distancing oneself from well-established scientific findings is seldom a fruitful policy to adopt.

In the present political climate in Australia, respect for aboriginality is at an increasingly high level; it does not depend upon the embracing of false theories of origin, which might indeed undercut the sympathy and support of other Australians — and of scientifically aware/educated Aboriginal people. And no one gains by branding careful, honest scientists as racists.
Zheng He in the Americas? Inuit maps?

Gavin Menzies has a proposal, now available in a book called 1421: The Year China Discovered The World, to the effect that both shores of the Pacific were extensively travelled and surveyed by the Chinese in late mediaeval times, notably by the famous admiral Zheng He. This was the culmination of a centuries-old tradition of advanced science. His main evidence involves maps which are allegedly of such a date and origin and show such details as to prove all this. Menzies is not without expertise in navigation and has obtained support from some academic sources, notably an American astronaut. But I struggle to see how the ancient and mediaeval Chinese, for all their possibly underplayed astronomical prowess, could have ‘recorded pulsars, quasars and neutron stars’; and it must also be pointed out that Menzies puts forward a very one-sided case. For example, he ignores the objections (familiar to regular readers of this journal and skeptical books) to the views that the Dieppe Maps show Australia and the Piri Re‘is Map Antarctica (in fact, he thinks Australia is on the Piri Re‘is Map too).

The small amount of linguistics in the book is not impressive. Notably, Menzies simply believes a non-expert source which states that a sample of script ‘looks like’ Malayalam and that Malayalam has largely ceased to be spoken; the latter is wildly wrong, and expert sources are readily available. On Australian wrecks and ‘ruins’, he identifies the Mahogany Ship (not actually found) as Chinese, and he even takes Rex Gilroy seriously on Gympie. (Note that Phoenician in earlier print/web material was an error for Venetian; Menzies must have missed this in proofing.)

Menzies has been joined by Peter Dickson, who has an article in the journal Mercator’s World linking the history of European maps and associated exploration around 1500 CE with Menzies’ claims. Several established scholars have already stated their view that Menzies at the very least overstates his case; but I am sure we will hear more of this.

Speaking of maps: James Enterline and Kirsten Seaver (of ‘Vinland Map’ fame; she is a leading and highly-qualified proponent of the view that the map is indeed a forgery) have been having something of a battle, also in Mercator’s World, about Enterline’s prima facie rather implausible theory that maps of the Arctic originally of Inuit origin circulated in Viking Europe and had major influence on early-mediaeval voyaging in the area. Each of them has harsh words to say about the other. My own sympathies are with Seaver; but this too is an ongoing saga.

The Nature of mice and chimps

In August and September 2002 there was much excited discussion of a report in Nature about the possible identification of a gene for language which appears to have emerged around 200,000 BP. This is just the time when *homo sapiens* may actually have begun to speak or at least sign (some of the physiology needed for speech seems to have arrived later). There remains the small matter of those *homo erectus* people who to all appearances must have built boats to get to Flores in 840,000 BP and (according to some) therefore must have been able to talk/sign to each other — but we are speaking here of sapiens specifically.

It has even been suggested that our very close genetic relatives, the chimps and bonobos, could now be readily induced to develop language, or at least to learn human languages, by manipulation of the relevant gene. And one source proposed that talking mice were not far away! There are various objections to this last (surely not?) and also some bioethics issues around this entire area; but more generally this looks like a very fruitful area for future study.

The ancient Welsh in America (not)

In August 2002, it was announced that a team of ‘independent historians and researchers’ had confirmed — through Carbon-14 dating and the discovery of anomalous artefacts — diffusionist accounts of British (Welsh) explorers under Prince Madoc reaching and settling the Americas in C6 CE. DNA evidence was being sought by way of further confirmation.

Two of this team are Alan Wilson and Baram Blackett, who are responsible together and separately for non-standard theories about King Arthur (as previously discussed) and other matters. Wilson describes himself as an ‘expert in ancient history’. He and his team have been working with Jim Michael of the Ancient Kentucky Historical Association, who sought their advice. A number of local historical groups in the USA have been involved in claims of this sort, partly as it seems by way of promoting their districts, which are often perceived as rather heritage-poor. But it goes without saying that the ‘expertise’ which has been accessed in this present case is dubious and the associated views non-standard.

Some of the old diffusionist locations as discussed by Barry Fell & Co appear again here, notably Bat Creek in neighbouring Tennessee, where Fell read one brief inscription (if so it be) as Hebrew. Jim Michael claims that the inscription on one stone tablet from Bat Creek (not the same one, I think) is in ‘Coelbren’ (or Coelbren y Beirid), an allegedly ancient British alphabet supposedly known and recorded by historians and hards down the ages. However, the evidence suggests strongly that Coelbren was concocted in early modern times as part of the ‘Celtic Revival’. Some other claims made here about ancient scripts are also dubious.

Wilson attacks opponents (‘wreckers’) who believe that Madoc’s voyage was in C12 rather than C6. But of course the mainstream position is that there is no good evidence that
such a voyage occurred at all. The team lay into this view as well, suggesting that it is adopted only for ‘political and theoretical reasons’ and in the face of contrary evidence. But Wilson has his own political agenda: ‘The Welsh people have suffered, and the opportunity to boost the economy, to bring thousands of jobs to Glamorgan and Gwent, where Madoc and his brother Arthur II ruled, has not been exploited’.

Fight to the Finnish?
Les Whale continues to support Ior Bock’s wild archaeological and historical claims. But the team of Norwegian ‘scholars’ who have sought permission to dig in Finland with a view to demonstrating the truth of the Bock Saga turns out to be tainted by association with the late Thor Heyerdahl in his increasingly fringe old-age phase. Heyerdahl’s historical linguistics was always amateurish and his views on other historical and archaeological issues became wilder and wilder (and much less well supported from data) towards the end. And some of the other intellectual links of this group are with local museums rather than with serious scholarship.

Proposals are still under consideration for testing Whale’s claims about his ability to (a) see human auras and (b) interpret languages he has never learned on the basis of Rot/Van. He has tried to avoid the latter issue with a string of evasions. Now he says that he can use this skill only with Burmese prayers in an archaic dialect confined to a few monks (and the only monk available has conveniently left Australia). Or else it can be manifested only if a group of people with the skill and with different first languages are gathered together so as to develop their awareness of Rot/Van to the required level. They want to gather together for this purpose at a top resort in Goa at the expense of Australian Skeptics, who will supposedly provide them with a ‘nice life’ while they commune on these matters. Oh, and most of them live in northern Europe!

However, there is in fact no trouble obtaining people proficient in any genuine variety of Burmese; we do not depend on one vanishing monk. But in any case it is not at all clear why a speaker of archaic Burmese, specifically, is needed. By Whale’s account, almost any language not previously known to him should serve the purpose; after all, Rot/Van are supposed to represent a pan-human Ursprache (Proto-World?). Nor, indeed, does there seem to be any reason why Whale cannot perform such a feat on his own. After all, he allegedly knows Rot/Van well enough already to have done this before, with his Burmese material! I have even been able to propose a means of testing Whale’s claims in written mode. While not as rigorous, this still might work adequately. The ball is very much in Whale’s court on this particular point!

Hard evidence in stone?
In the conspiracy magazine *Hard Evidence* for August 2002 there was an article based on Russian reports about the discovery of a vastly ancient map (120 million years was mentioned!) carved on stone in Asiatic Russia. Associated with this find was text in a mysterious writing system identified as ‘hieroglyphic-syllabic’ (it is not clear what the former term means in this context, and the latter could be determined only if there was a large enough corpus of texts).

Web sites from the same sources identified a centre for cartographic studies at the University of Wisconsin as collaborators in this enterprise. I contacted the university and got the impression that I should get to the back of a queue; they had been deluged by nutters with requests for info. They did send me a polite standard letter denying any involvement (even the name of the centre is wrong). So far I have found no good evidence at all that supports these claims. The photographs in the sources are unconvincing and *Hard Evidence* ignored my request for assistance. Of course, Cremo and his fellow Vedantic pre-historians would love this stuff; but it may not be of any more reliability or use than what they already have.

**ET speaks and writes some more, but you can’t analyse him!**
A while ago I discussed the video produced by Mary Rodwell, who runs a support group in Perth for UFO-experiencers and is especially concerned with artwork and allegedly alien linguistic forms (spoken and written) produced by those who believe they have been abducted or at least contacted by extraterrestrials. Rodwell has now published a book (one of a pair of books from Fortune) on the theme of alien abduction, containing some material on the linguistic aspects of the case. I have reviewed this book and I hope the review will appear in various useful places.

The most damaging aspect of this book is that it is implied that analysis of these alien languages — no matter how sophisticated and free of advance assumptions based on the nature of human languages — is more or less impossible, because these supposed languages lack stable or well-defined structures within which morphemes with a constant meaning can be identified. This appears implausible, even for aliens. One cannot be blamed for suspecting that claims of this kind might have been developed with the aim of preventing scientific analysis of this material and thus blocking any possible demonstration that the nature of the material was (or might very well be) not as described (eg, that it was non-linguistic or concocted). This would certainly be the actual effect of adopting such a position; nothing useful could be said about such material (other than about the phonetics, which are suspiciously unremarkable). Watch this space for more of this saga!

**Revisionist books 1:**
the Greeks and the Great Serpent
Ross Hamilton has a book (and a web site) on the Great Serpent Mound of Ohio (almost inevitably
Confused Language

called The Mystery Of... that begins with a relatively sober if C19-slanted review of ideas about this impressive and still arguably mysterious monument. But it rapidly collapses into nonsense involving prima facie very implausible and poorly supported diffusionist claims that the specific letter-forms of the Greek alphabet were based on the patterns in the Mound. Hamilton is aware that the alphabet had a Semitic source (very probably Phoenician) but garbles the details; indeed, he shows that he does not understand either (a) linguistics (eg, his philology is of the usual amateurish/C18 kind) or (b) the history of Greek (and its scripts) adequately for the task. His own evidence mostly involves impressionistic reactions to the appearance of the mound as viewed from above and unsupported judgments as to significant links between apparently unrelated facts. (Astonishingly, he blasts some unidentified linguists for not grasping such points or considering them in arriving at their views!) My review of the book is on Amazon.com; more on request.

Revisionist books 2: Hebrews and Egyptians

There is a long non-mainstream tradition of re-interpreting the events related in Exodus. Notably, Akhenaten and Moses are often linked or even identified as the same person — or, by Ralph Ellis and Ahmed Osman, as brothers. Akhenaten’s dynastic (non-immediate) successor Tutankhamun is also invoked; see for instance Collins & Oglivie-Herald’s new book Tutankhamun: The Exodus Conspiracy (which allegedly has implications for modern politics in the area!). (Graham ‘Holy Grail’ Phillips, in The Moses Legacy, argues that Moses is a blend of two figures, a Hebrew leader called Kamose and the pharaoh Tuthmoses.)

Of more linguistic relevance is Messod & Roger Sabbah’s book Secrets Of The Exodus (translated from French by Art & Lois Banta), which argues that the ‘chosen people’ were in fact the Egyptians, who were conquered by the Hebrews and suffered under the re-writing of history by the victors (a common tale and not an untrue one, albeit over-used by postmodernists and fringers). In this version, Moses was yet another pharaoh, Ramesses I (while Akhenaten was Abraham!).

Predictably, there is a great deal to worry about here; but the linguistics is especially bad. The Sabbahs write as if the origin and development of the Hebrew abjad (consontantal alphabet) and other related Semitic scripts were only very sketchily known, with large gaps waiting to be filled by such as them; they derive the abjad from key parts of hieroglyphs, each retaining much of its Egyptian significance.

Well, there certainly are unanswered questions in this complex area, as one would expect. But by the relevant time Egyptian hieroglyphs had already lost their pictographic function (those which ever had one, that is). Contrary to appearances and popular belief, the script was predominantly phonological in dynastic times. And the Semitic abjad scripts are undoubtedly closely connected with each other. There may really be an older Egyptian source for some of the Semitic letters (after all, the languages themselves are related, albeit not very closely); but, if there is, it is at the back of this whole set of scripts, not just Hebrew. In fact, the evidence for the specific connections proposed — even where the words themselves are or may be related — is again mostly impressionistic. Many cases involve special pleading or outright contrivance. It is even easier to find accidental parallels between Hebrew letters and hieroglyph-parts than between Greek letters and American earthworks!

Revisionist books 3: Zangger strikes again!

Eberhard Zangger (Flood From Heaven) has a new book The Future Of The Past, in which he surveys the European archaeological scene and some of the main current controversies. He remains convinced that Troy was Atlantis; he discusses an ‘independent’ assessment involving a statistical test which allegedly picks this identification out as a much closer fit with Plato’s story than any of the other leading contenders, and also as superior to the standard view that Plato made most of it up. One would need more details in order to assess such a test; but the ‘independence’ appears spurious given that Zangger himself decided what information to include, how to code it etc! This will scarcely convince anyone who is not already convinced.

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Ghost stories abound in the pretty New England town of Armidale. From the reputed spectres of the local heritage homestead Saumarez, to a haunted orphanage and the alleged lingering souls of a former women’s prison, many residents earnestly and eagerly pass down local legends. However, when a tale of supernatural activity hit close to home, combined with a paranormal purveyors promise of poltergeist protection, the opportunity for an investigation arose.

Setting the scene
It all started when I was helping a friend, Matthew K, move house. Knowing my penchant for investigating the paranormal he relayed to me the stories surrounding the ‘haunted’ Beardy Street property into which he was moving. “This might be something you’d like to investigate”, he added. You’ve heard these stories before … an occupant awaking to the sound of footsteps on the cold, creaking wooden floored hall, when he’s alone in the house. Lights inexplicably flashing on and off. Shadows. Doors flinging themselves open or slamming shut. Closed windows later found open. Objects disappearing and resurfacing in unexpected places. Cold spots in the house. The pet dog barking manically at an invisible disturbance. An insistent tapping on windows, walls and doors with no known source. People experiencing a sensation of being touched by an unseen hand.

The charming Federation house sits in a quiet part of the street and is located about one kilometre from the town centre. The household consists of two male occupants and a pet dog, currently lost. The residents are tenants, both students at the local university and both named Matthew, causing constant, yet unrelated confusion. Matthew S, aged 26, has resided in the house for one year while Matthew K, aged 24, has lived there for six months. It is Matthew S who has experienced the phenomena, along with his previous flatmate, Cassandra, daughter of the landlord. The owners have never resided in the house and have never experienced anything unusual whilst visiting the property. Matthew K is a skeptic who has never experienced anything of a paranormal nature in the house. I have personally found
them both to be honest and intelligent men, and Matthew S to be very sincere in his recollection of his experiences. Both were very keen to participate in the investigation and to explain the phenomena reported by Matthew S.

**Enter Ghost Busters**

Fortuitously, I then stumbled across the Ama Nazra Spiritual Teaching Centre, an Armidale ‘practice’ that offers a range of New Age services; reiki attunement, energy balancing, polarity therapy, iridology, reflexology, past life regression, psychometry, Horstmann technique, DNA therapy and breathwork (for a brief treatment of these last two ‘therapies’, see my previous article, Angels and Financial Angles Pt 2, Volume 21, No 4). One service really caught my eye… ‘Spirit Rescue (Ghost Busting)!’

I called the Teaching Centre and spoke with Ama herself, asking her for more information about her ghost busting services. She said that she prefers to refer to ghosts by the “friendlier” term “spooks”. Oddly, this was the first and only time she used the term. Her service is known as ‘ghost busting’, ‘spirit rescue’ or ‘soul rescue’ and her main objective is to ‘speak’ with “fragmented spirits” and guide them in their journey ‘home’. Ama assured me “there’s so much work to be done in this. So many lost spirits.” She added that she refuses to do séances; “I send them home. I don’t bring them back.” It took little to persuade Ama to become involved in the investigation - for a fee of $50 she agreed to drive out the spirits of the house, and the exorcism would take one hour. Apparently it was a foregone conclusion that the house was haunted and required deliverance. After explaining the alleged paranormal activity within the house Ama said excitedly “Oh goody!” and announced sagely that the phenomena constituted a “classic haunting”.

On Wednesday afternoon Ama arrived at 4pm with partner and fellow psychic Bernard — together they perform ‘spirit rescue’. “I can see the spirits and Bernard can sense them”, explained Ama. They wished to speak with any residents who had experienced the paranormal phenomena, so they led Matthew S away for a quick chat. He reiterated the stories attached to the house, most of which he claims to have experienced himself. He emphasised that he wasn’t frightened or annoyed by the phenomena and didn’t want to exorcise any ‘spirits’ that might share his house, he just wanted the incidents to be explained. In her quest to repatriate the lingering souls of Earth, Ama replied dogmatically, “They must go!”

Ama and Bernard then embarked upon a brief tour of the house, merely peering into the rooms rather than entering them and all the while ‘tutting’ about the impressive display of student/bachelor squalor. I could barely keep up with the pair in their blitzkrieg on the resident ‘spirits’ which ended on the veranda, Ama, pale and seemingly scared, shouted “Bitch!”, while Bernard ran behind her, yelping all the way. “We’ve found the spot!” Ama shrieked between heavy breaths. “There are two of them. Buried in the yard. It’s terrible.” As Ama invited us to take a look for ourselves, we removed our shoes and headed towards the spot with Ama and Bernard in tow (they seemed to have regained their composure and were now happy to trudge around the patch of grass that had so terrified them minutes before). “I can tell that you are sensing something”, Ama noted, “you’re both reluctant to cross the area”. Yes, Matthew K and I had crept gingerly towards the spot … the ground was overrun with grass, thistles and thorny weeds!

Ama claimed that there are two bodies buried in shallow graves in the far left corner. One was that of a 58 year old woman and the other of a young male. She was convinced that it was an 8 year old boy, but Bernard argued unsuccessfully that the spirit was that of a teenager. According to Ama the two people probably died in 1848. I asked if they had died under normal or nefarious circumstances. “It was murder!” replied Ama dramatically.

We walked sombrely back to the veranda as Ama explained that the spirits were probably affecting the surrounding houses, “Your neighbours would be experiencing the same phenomena”. Matthew K expressed an interest in excavating the ‘burial site’, at which Ama snapped, “You can’t do that. Nothing’s there any more anyway.” Matthew K rightly pointed out that some bones of the deceased would probably re-
main, if indeed any bodies were buried there at all.

Ama then announced that the little boy spirit was named Damien, while Bernard argued for Daniel, which Ama eventually accepted. The spirit of the woman was a little shy in revealing her name, “... because she's German”, Ama explained. She then took the spirit aside to a quiet part of the veranda for a chat and on her return we learned that the female spirit's name was Klara and that she was very displeased with the occupants for their inattention to housekeeping and their hedonistic lifestyle of drinking and smoking cigarettes. Apparently it was she who opened the doors and windows, “to let fresh air into the house”. Klara was also a bit of a misandrist: “Klara likes it when you visit, Karen. She likes women. She doesn’t like men. She won’t leave my side now. Stay away Bernard.”

I then asked Ama and Bernard to discuss anything they had seen or sensed in the house itself. Ama told us that she had spotted Klara as soon as she approached the house. “She was there on the front porch, sitting in a rocking chair and staring suspiciously at me. She zapped me, which is her way of telling me to go away. But I walked right in anyway.” (Which rather discounts Ama’s theory that Klara liked the company of women.) Ama explained that the ‘zap’ felt like a mild electric shock. I went outside and checked the area but all I could spy was a lone shoe, tossed in the corner of the veranda. Bernard then told me that he had immediately sensed the spirit of Daniel lurking in the pantry. He later felt Daniel’s presence in the toilet. Bernard argued for Daniel, which Ama eventually accepted. The spirit of the woman was a little shy in revealing her name, “... because she's German”, Ama explained. She then took the spirit aside to a quiet part of the veranda for a chat and on her return we learned that the female spirit’s name was Klara and that she was very displeased with the occupants for their inattention to housekeeping and their hedonistic lifestyle of drinking and smoking cigarettes. Apparently it was she who opened the doors and windows, “to let fresh air into the house”. Klara was also a bit of a misandrist: “Klara likes it when you visit, Karen. She likes women. She doesn’t like men. She won’t leave my side now. Stay away Bernard.”

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Who You Gonna Call?

told us that Klara had finally left with Margarite for the journey home.

“Are you any good at imagining things?” Ama asked. Although clearly nowhere as talented as she, we assured her we were. She then asked us to join her and Bernard in a “cleansing ritual” to return the positive energy to the house. We were instructed to imagine a siphon or vortex, spinning beneath the house and drawing out the “negative energy”. The four of us then returned to the ‘burial site’ where we performed another cleansing ritual upon the tormented plot of land. This time we were asked to close our eyes and imagine great “columns of white light” extending from the sky to the graves. This would return the positive energy to the site. Ama then collapsed into Bernard’s arms and sighed, both exclaiming at their tiredness from the afternoon’s activities. “This work is exhausting, very draining” Ama said. With that they left. On her way out, Ama said that some “residual activity” may occur, and in that event we were to call her immediately. Ama could even perform her work from home, if any late night activity occurred. Matthew marvelled that the whole process fit so neatly into the hour appointment. By 5pm exactly, both ghosts and psychics (and, presumably, Elvis) had left the building.

Seeking truth

My next task was to attempt to explain the phenomena and verify the scant information Ama had provided. Many of the incidents may be dismissed as readily explainable. Cold spots in the house may be attributable to natural sources. Armidale is notoriously cold and windy in Autumn and Winter with sudden spates of cold weather year round. The house is heated with wood fires and therefore sections of the house are prone to coldness. The sensation of being touched may have the innocent source of a wind or breeze. This would also explain the doors that open and close, seemingly without a source. Incidents involving the lights can swiftly be explained by power surges or broken switches. As for the pet’s behaviour, dogs are noted for reacting to anything; barking at sounds, insects or simply other dogs or people outside the house itself. The dog could also account for other phenomena such as the footsteps in the hall, shadows and the tapping sounds throughout the house. The incidences of objects disappearing and reappearing elsewhere can simply be put down to the lifestyle of students and the immense traffic of visitors. Nor can the effects of alcohol consumption be ignored as a potential source of hallucination! Lastly, it must be noted that Matthew K had never experienced anything unusual in his six month stay as a tenant, despite being aware of the phenomena reported and, as a result, probably vigilant for anything strange.

I then turned to archivist and historian Bruce Ibsen at the University of New England’s Heritage Centre. I asked Bruce to look into the
history of the house and to confirm the existence of any health sanatoriums in the Armidale area in the 1840s. Ama and Bernard had not provided me with much information to research and what they did impart was vague, conflicting or later retracted. Without provided surnames, (aside from the non-specific and common 'S') it is difficult to search any available records. Inadequately rationalised her inability to extract precise details from the spirits, thus absolving herself of having to provide concrete, verifiable information.

Conversely, the spirits offered superfluous information; Klara dislikes a messy house, Daniel reveres the young tenants. This raises the question that if Ama can extract such irrelevant information from the spirits, why can't she find out simple details, such as their complete names and birth and death dates? The work of Ama Nazra and Bernard is infinitely simpler and cruder than the psychological, manipulated mediumship of James Van Praag and John Edward.

Bruce Ibsen was able to prove conclusively that no house stood on the Beardy Street property in 1848. He researched the history of the land and found that the current address lay somewhere between former lots 3-8. In 1878 only one house stood on this section of land, it was built and owned by Charles Howe who owned lots 3, 4, 5 and 6. This house no longer exists. Charles Wilson owned the unoccupied lots 7 and 8. Prior to 1878 this unoccupied section of land was owned by Franklin Jacks. (No surnames beginning with an 'S'.)

This information discounts Ama's statement that 'Klara' and 'Daniel' had lived and died in this section of the street as no house existed here in 1848! Bruce also discounted the notion that any tuberculosis sanatorium existed during this time, though Armidale does have its own district hospital. However, this hospital was not established until 1883. As for Klara's German descent, Armidale did have a large German population, particularly around the Gold Rush era, given the town's close proximity to the gold mining areas of Hillgrove, Rocky River, Inverell and Bingara. 1848, the supposed year of the deaths of the supposed Klara and Daniel, falls short of the Australian Gold Rush by a few years, but is close enough if you're a hit-and-miss psychic.

As for the question of why the two unrelated 'bodies' were buried in the backyard, great doubt may be placed over this claim. If Klara and Daniel had died of natural causes they would most likely have been buried in the local cemetery. Home burials were never common in Armidale, although Ian Johnston of the Armidale History Group told me the peculiar story of one man who was buried in a well at his home around this same time. Again, Bruce Ibsen clarified matters by stating that a cemetery did exist in Armidale in 1848, on the site where the Armidale Public School now stands. This cemetery was established in the early 1840s and closed in 1859 when the bodies were exhumed and relocated to a new site on the south side of Armidale city. A second cemetery was opened in 1861 and still exists today.

Conclusion

Despite intensive research there was no way I could substantiate Ama and Bernard's feeble claims. At the last moment, Ama broadened the scope of her analysis by stating that Klara and Daniel could have lived in any house in the area, running contrary to her earlier statement that the phenomena were caused by the repetition of patterns completed in this house during their lives. Upon pressing her for precise information, Ama retorted, "What's the point in quizzing them?"

'What's the point?' is indeed the question. The many contradictions that emerged during the investigation must call into question whether the 'psychics' had any idea of what they were doing. But what is the real harm in 'spirit rescue'? We all had a bit of fun that day. However, it is clear that Ama and Bernard fall into one of two possible categories. Either they truly believe in what they do, which raises questions regarding their mental and emotional stability, or, they are blatantly deceptive, profiting from the fear, frustration and confusion of other people with their unethical and worthless 'work'. It would be kinder to think that the former explanation better fits this case.

For those who wonder if the phenomena continue or if any 'residual activity' occurred, I'm happy to report that nothing out of the ordinary has happened since. Perhaps nothing ever really did?

Footnote

Ama Nazra now does House Blessings — she put a new sign in front of her establishment on Nov 28!
In Deadly Ernest:

or, how two poets fooled an Angry Penguin

Born in 1918, and aged just 25 years old when he died in 1943, Ern Malley was considered by some to be a great Australian poet — perhaps a genius. He never existed.

In fact, he was invented by the poets James McAuley and Harold Stewart to fool Max Harris, the editor of Angry Penguins, a magazine specialising in modernist literature. Using little more than a dictionary, an archaic edition of Shakespeare, and a scientific report on the drainage of mosquito breeding grounds, the pair created both the poems and the poet, giving him a name, a personality, a family, and a history.

Harris, the editor, accepted the poems, thinking that he had found a genius. He hadn’t, and when the hoax was revealed, he was publicly ridiculed.

The Ern Malley affair is different from many of the frauds and hoaxes that we’ve heard about. Most well-known hoaxes call into question flawed scientific or, more broadly, flawed philosophical claims. Helen Vnuk talked about one such hoax in the previous issue of the Skeptic, where she showed how Doug Bower and Dave Chorley were able to discredit the claims of crop-circle cranks by admitting to creating many crop-circles themselves. Another well known example is the decision by editors to publish an essay by Alan Sokal in a postmodernist magazine. Turns out that Sokal worked several basic scientific mistakes into his essay, deliberately.

But the artistic world isn’t without its hoaxes, either. Australian poet Gwen Harwood, for instance, managed to get a sonnet published in The Bulletin, which had an anagrammatical message hidden within: ‘Fuck all Editors!’

The trouble is that, while science is about the verification or falsification of certain simple facts, poetry isn’t. Poetry is creative; it doesn’t necessarily have to tell us about the way the world is. When McAuley and Stewart created Ern Malley, they created a fictional character. So what? Isn’t that what writers do all the time?

Well, in the end, what’s important about the ‘Ern Malley’ affair is not that a character was created, but that he represented a way of writing...
and interpreting poetry that McAuley and Stewart felt to be dishonest. If you look carefully at some of the comments made by Harris and his defenders, you’ll notice that their claims are remarkably similar to those made by the defenders of pseudo-science — they distract us by admitting to their own fallibility, at the same time using random, often contradictory evidence to support their own authority as critics and interpreters. I would suggest that we can learn just as much about self-deception, and the deception of others, from the ‘Ern Malley’ hoax as from many scientific hoaxes.

**The Case for the Defence**

When Harris was tried in court for the publication of obscene material, the Ern Malley poems were used as evidence against him. He continued to defend the poems — he argued that, even though the poets McAuley and Stewart did not realize it, they had created a great poet, possibly a genius — and some critics even agreed with him!

There is an account of the trial in Peter Coleman’s book *Obscenity, Blasphemy, Sedition: The rise and fall of literary censorship in Australia*. It makes curious reading. The only witness for the prosecution was one Detective Vogelsang.

In this case Vogelsang objected to *Night Piece* because it was about events in a park at night: ‘I have found,’ he said, ‘that people who go into parks at night go there for immoral purposes. My experience as a police officer might, under circumstances, tinge my appreciation of poetry.’ Explaining his objection to *Egyptian Register*, he said: ‘I don’t know what “incestuous” means, but I think there is a suggestion of indecency about it.’

Witnesses for the defence included several literary critics, including Dr Brian Elliot, who said that the poems ‘offended his sense of literary delicacy but not his moral sense’; John Reed, co-editor of *Angry Penguins*, who argued that ‘the Ern Malley poems were great literature’; and Reginald Spencer Ellery, a Melbourne psychiatrist, who advised that ‘the poems would bewilder but not sexually excite the average reader.’

Harris, naturally, concurred with John Reed, and argued that the Malley poems were of real literary value. He backed up this judgement with increasingly farfetched interpretations of the poems — here’s one of them:

**Sweet William:**

*I have avoided your wide English eyes:*
*But now I am whirled in their vortex.*

*My blood becomes a Damaged Man*
*Most like your Albion;*
*And I must go with stone feet*
*Down the staircase of flesh*
*To where in a shuddering embrace*
*My toppling opposites commit*
*The obscene, the unforgivable rape.*

*One moment of daylight let me have*
*Like a warm arm thrust*
*Out of the dark and self-denying wave*
*And in the one moment I*
*Shall irremediably attest*
*How (though with sobs, and torn cries bleeding)*
*My white swan of quietness lies*
*Sanctified on my black swan’s breast.*

Harris informed the magistrate that it dealt with the conflict of a man with himself, including the conflict between desire and self-denial (the black and white swans and ‘My toppling opposites’). He also explained that ‘stone feet’ is a reference to Mozart’s *Don Giovanni* where the statue walks, and that ‘rape’ is used in the classical sense of *rapio* — ‘I seize’. The lines ‘My blood becomes a Damaged Man/ Most like your Albion’ meant ‘my blood becomes involved in a struggle with the corrupting force just as Lear was torn by corrupting forces’ — ‘Damaged Man’ referring to syphilis and ‘Albion’ to Act III, Scene II of *King Lear*.

But try as he may, the magistrate could only suggest rape...

Of course, if you agree with Harris, then the Malley poems are open to any interpretation whatsoever, no matter how tenuous the relationship between the interpretation and the original poem. But poetry doesn’t work like that, because it’s based on language. And language, in its essence, is something that communicates specific ideas with clarity.

Harris isn’t interested in what poets are actually saying: he’s interested in endless interpretation, re-interpretation, and re-re-interpretation. When all is said and done, he’s interested in securing his own reputation as a ‘critic’.

**Fifty years on**

The Ern Malley story still hasn’t ended. Many university courses look at the Ern Malley poems in detail. As a first year student at Sydney University, I can recall David Brooks telling a lecture theatre about Ern Malley: ‘he can be both very very good and very very bad.’ Brooks is now the editor of *Southerly*, a magazine with significant similarities to *Angry Penguins*.

Why is there such a fascination, amongst modern poets, with the Ern Malley affair? A recent edition of *Jacket* magazine (an online magazine, edited by poet John Tranter – www.jacketmagazine.com/17) gives us an answer. The issue is devoted to literary frauds and hoaxes, and focuses on the Ern Malley affair in particular. Not only do we find (re-published) the entire Ern Malley poems, but also a copy of the Ern Malley Will and Testament, (which has only been ‘discovered’ this year) and an appreciative essay by David Lehman. Lehman sees Max Harris’s defence of Ern Malley as ‘heroic’. He concludes: ‘it is clear that the tide in Australia has turned in their favour’.
The Ern Malley affair was the century’s greatest literary hoax, not because it completely hoodwinked Harris, and not because it triggered off a story so rich in ironies and reversals. It was the greatest hoax because the creation of Ern Malley escaped the control of his creators and enjoyed an autonomous existence beyond, and at odds with, the critical and satirical intentions of McAuley and Stewart. They succeeded better than they had known, or wished. Malley’s poems hold up to this day, eclipsing anything produced by any of the story’s main protagonists in *pro pria persona*.

**Malley and the Institution**

Ern Malley doesn’t just represent a literary hoax; he represents a literary genre — modernism. The original modernists, T.S. Eliot, James Joyce, and their contemporaries, were looking for a style of literature which was relevant to modern times; a style which was new in every way. They continually experimented with language, looking for new ways of expressing new ideas. Over time, this style proved to be hugely influential; not only did it spawn a new generation of poets, but it gave rise to an entire academic school, concerned with interpretation and criticism — because in many cases, neither the poets or the readers were sure what they were looking for, any more. This academic school continually looked for new and different meanings in the growing body of modernist poetry. So what is at stake, in the Ern Malley affair, is modernism — a literary style and an academic institution — which eventually gave rise to the type of criticism which Max Harris championed.

Of course, John Tranter and his writers as well as Max Harris and his defenders would like to make a hero out of Ern Malley. They argue that McAuley and Stewart were infected by the modernist spirit when they created Malley. (“I’ve always believed that Ern Malley was one of Australia’s great master poets” says Tranter.) But in doing so, they only make themselves look more ridiculous. They are defending their own way of making poetry (by using games, random quotes, literary experiments). They don’t remember — or perhaps they would like to forget — that what the Malley poems really parodied was the poetry produced by these means. These poets are defending their inability to read, understand, to share, and to engage with thoughtful, well-crafted poetry. But let’s leave the last word to James McAuley — who this time is writing as himself:

**To Any Poet**

Take salt upon the tongue
And do not feed the heart
With sorrow, darkness, or lies:
That is the death of art.

Living is thirst for joy:
That is what art rehearses.
Let sober drunkeness give
Its splendour to these verses.

Move like the sable swan
Over the luminous expanse
In sight, but out of range
Of barking ignorance.

Now that is real poetry — honest, finely crafted language, which talks to us with clarity and force. Ern Malley could never do that.

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**Deadly Ernest**

**Poesy**

**Cancel Christmas?**

Last year I said, “I’ve really had enough
Of all this cant and Merry Christmas stuff.
I hate those crowded shopping malls,” I moaned
“And all those Father Christmases they’ve cloned”.
I sympathised with Scrooge and Bernard Shaw
Who thought it was a custom to ignore.
I’ve grown tired of that commercial hype
With all its gaudy, humbug, and I gripe
At gifts so similar to those I sent
Plus worrying about the money spent
On festive food that’s often thrown away
To celebrate this one December day

Wise men, nowadays would think it odd
To pay those tributes to a baby God,
For new-born infants surely would prefer
A gold Trust Fund, to frankincense and myrrh.

And yet, as Christmas nears, I am beguiled
To seek that same enchantment as a child
To once again believe that this could be
A season for goodwill and fantasy.
So many Christmases kaleidoscope
To wish you all, a Christmas full of hope.

Joan Vaughan-Taylor lives in the Blue Mountains, a delightful spot, if occasionally uncomfortable for a Skeptic.
Neither Skeptical nor an Environmentalist

A further review of a controversial book


I was astonished to read in the Skeptic Michael O'Rourke's paean of praise for the controversial book, The Skeptical Environmentalist (the Skeptic 22.3). When I was urged to read it last year, I concluded that the author, Danish statistician Bjørn Lomborg, is neither sceptical nor an environmentalist in any normal sense of those words. I thought a better title might have been The Gullible Economist — if that isn’t a tautology. The book appeals mainly to those who desperately want to believe that there are no serious environmental problems, so are prepared to grasp at any half-credible writing that makes a reassuring claim — she’ll be right, mate, as long as economic growth is sufficiently rapid. Praise Adam Smith and pass the micro-economic reform agenda, a clean green world is just around the corner.

The book isn’t all bad. It correctly says that some environmentalists are either not rigorous in their thinking or selective in their use of evidence. A rigorous thinker who wasn’t being selective in their use of evidence would have also said that the same comment could be made about some industrialists, some economists and some politicians — but Lomborg does not. Unfortunately for those who want to believe his claims, he is also selective in his scepticism — for example, he gives an intelligently critical analysis of the shortcomings of global climate models, but then accepts without any hesitation the much shakier claims of economic models.

There are models ...

The climate models, for all their limitations, are at least based on physical principles and tested against the real world. The economic models invite the derision of any serious sceptic by their crucial reliance on starting assumptions, making it possible for modellers to produce the answers desired by their financial backers, as in the notorious case of the Australian Bureau of Agricultural and Resource Economics (ABARE) being funded by energy-intensive industries to produce models claiming that emission reductions would bring the Australian economy to its knees. I have pointed out elsewhere the shortcomings of these models, the most obvious being that they calculate the

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costs of such proposed changes as increasing the price of energy without even considering the economic benefits, let alone the broader social impacts.

In other cases, Lomborg is just wrong — for example, he claims that the Club of Rome report Limits to Growth predicted that we would run out of resources. It actually said, in 1972, that if the growth trends in population, resource use, industrial production, agricultural output and the production of waste were all to continue, limits to growth would be reached within a hundred years, before going on to say that none of those trends is inevitable and it is entirely possible to conceive of a sustainable future. Similarly, Lomborg claims that the IPCC projections of future climate change are “worst case” scenarios, whereas the IPCC says clearly that its quantitative estimates could be wrong in either direction — and warns, more basically, that non-linear systems when rapidly forced, as the Earth’s climate system now is, can behave in unpredictable ways.

Lomborg suggests that choosing the lowest of the credible estimates for the current rate of extinctions leads to the conclusion that it is only 1500 times the long run average for the planet and therefore not a problem, whereas biological experts like Robert May (formerly UK Chief Scientist and now President of the Royal Society) say that same figure is typical of major extinction events, like the end of the Cretaceous period.

**Inconsistencies**

In other areas, Lomborg’s eagerness to advance his belief that there are no serious environmental problems leads him into a morass of inconsistencies. For example, he argues (defensibly) that constant technical improvements make resource shortages unlikely, but then rejects the (equally compelling) case that constant technical improvements are giving us cost-effective ways to reduce emissions of carbon dioxide. These so-called no regrets measures are dismissed with broad, sweeping un-referenced claims such as “Most economists are skeptical of such arguments…” (page 311).

Only twenty pages later, wanting to argue that human health is being improved, Lomborg suddenly acknowledges that “Some of the initiatives cost nothing or actually save money” — a finding that he lampoons elsewhere in the book as being equivalent to a naïve delusion that there are restaurants where you are paid to eat!

In similar terms, Lomborg produces (page 177) a graph of urban air pollution as a function of wealth, showing a clear maximum beyond which the rich countries are able to clean up their pollution. From this he concludes that “there is good reason to believe that the developing world, following our pattern, in the long run likewise will bring down its air pollution”. In the long run, perhaps — if you believe the graph, today’s poor countries will eventually bring their air pollution back down to levels similar to those now existing, after an intervening growth period has made it about a factor of ten worse.

By his critique of selected issues, Lomborg sweeps to a general conclusion that the world is getting better. He claims to have refuted the broad statement in his introduction of a litany of environmental problems: “forests are shrinking, water tables are falling, soils are eroding, wetlands are disappearing, fisheries are collapsing, rangelands are deteriorating, rivers are running dry, temperatures are rising, coral reefs are dying, and plant and animal species are disappearing”. In fact, almost all of those statements are clearly true, both in Australia and globally.

The second national report on the state of Australia’s environment notes some good signs before stating its general conclusion that “the Australian natural environment has improved very little since 1996, and in some critical aspects has worsened”. It warns that the responses needed if we are to fix our environmental problems “are beyond the capacity of existing institutional arrangements and individual landholders”.

**Degradation and extinction**

At the Global Change Science Conference in Amsterdam last year, over 1000 of the world’s leading scientists warned that many of the parameters of the planetary system are now outside the range of previous experience since humans have existed as an identifiable species. The third report on the Global Environmental Outlook, produced this year by the United Nations Environment Program, concludes that there is “indisputable evidence of continuing and widespread environmental degradation” because policy measures have not been adequate to counteract the pressures imposed by unsustainable levels of consumption in rich countries and increasing numbers of desperately poor people in the developing world. Among the explicit statements of global environmental problems it notes “more and more countries facing water stress or scarcity”, “the extinction rate of species is believed to be accelerating”, “a sharp global trend towards increasingly intense exploitation and depletion of wild fish stocks”, “land degradation continues to worsen,”
particularly in developing countries”, “many remaining forest ecosystems have been degraded and fragmented”, “the large increase in reactive nitrogen in the planetary biosphere is contributing to the acidification and eutrophication of ecosystems”, “urban air pollution and deteriorating water quality having major health, economic and social impacts” in developing countries, and increasing emission of almost all greenhouse gases. That is not by any stretch of the most fertile imagination a reassuring picture.

The fundamental belief driving Lomborg is that “it is imperative that we focus primarily on the economy” (page 324) — the environmental equivalent of the discredited trickle-down model of economic development, suggesting all our environmental problems will be solved if we get rich enough. This is justified by a graph on page 33 of his book, showing a small positive correlation between per capita wealth and an index of environmental quality. There are two problems with this claim. The first is that any real effect is hugely exaggerated by plotting per capita dollars on a logarithmic scale. Examination of the actual data shows, for example, that some countries with a GDP below $1000 per head are doing better than others with over $20,000 per head, so there is no simple linear relationship between wealth and environmental quality. The second problem is the logical fallacy that correlation implies causality. Sometimes a correlation is based on a causal link — for example, taller people tend to be heavier than shorter people. Sometimes there is no direct link. The number of lawyers in Australia is increasing and so is the number of drug addicts, but nobody seriously suggests a direct link.

Even where there is a link, it doesn’t follow that it can be extended; no rational person would conclude from the link between height and weight that getting heavier would make them taller! But Lomborg explicitly concludes that the best thing we can do to clean up the natural environment is become wealthier. Thus it seems legitimate to trash the environment to get rich, because then we will be able to afford to clean up the mess we made. Even if that were a defensible general approach, it is now clear that some problems [such as salinity and species extinction] are effectively irreversible; no amount of wealth will bring back an extinct species, or restore salinated land on any human time scale.

Focus on economics

It would be of great comfort to politicians, industrialists and public servants if they could believe that things are generally getting better, so their traditional emphasis on economic indicators will produce a better world. So I can understand the joy with which Lomborg’s simplistic analysis has been greeted.

Sceptics should be driven by the evidence, however. The scientific opinion is clear: we have very serious problems which demand urgent attention. The second Global Environmental Outlook report said explicitly that the present course is unsustainable and that “doing nothing is no longer an option”. Even the Australian Bureau of Statistics, in its report this year Measuring Australia’s Progress, having concluded that all the economic indicators were positive for the 1990s, noted that the social indicators were mixed with some very worrying trends, and all the environmental indicators except urban air quality got worse. In other words, the positive economic trends are not producing better social conditions and a cleaner environment; the trickle-down effect is not working.

More fundamentally, the economic progress is being produced by running down our social capital and our natural capital. That is not the basis of a sustainable future. As the first national report on the state of the environment said, achieving our stated goal of sustainable development requires integrating ecological thinking into our social and economic planning. A naïve faith in the magic of the market is no substitute for considered policies that nurture our natural and social systems. Even the Council of Australian Governments, hardly a radical body, concluded a decade ago in its National Strategy for Ecologically Sustainable Development (ESD) that “a coordinated approach to ESD is required”, given “the significance of potential threats to our environment and our economy if we do not take action”. Ten years of studied inaction have not reduced the seriousness of the problems or the need for coordinated responses.

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Editor’s Note

While it is uncommon for us to publish two reviews of the same book, when we have two widely differing opinions from two distinguished academics on the same book, it seems like a good idea to hear both opinions. The previous review, by Prof Ian Plimer, appeared in 22:1 pp48-50. (If this keeps up we’ll have to conduct a Professor-Ianal Opinion Poll.)
An awe inspiring visit to the movies

Space Station 3D
Currently at Imax in Sydney and Melbourne (not Brisbane).
http://www.imax.com.au

Launch and space travel are perhaps the most exhilarating experiences a human can have, and when the realism is captured by the best camera system, the results are not to be missed.

The film begins with a suited astronaut losing his grip and drifting away from the space station, but fortunately it is only a training sequence performed in the swimming pool at NASA in Houston.

Most earth shaking are the launch sequences (Shuttle, Soyuz and Proton). Some people say they will come back just for these. Imax cameras and microphones were positioned perhaps 50 m from the launch vehicles to capture the full bandwidth of the experience. I don’t know how big the speakers are in Imax, but when the rocket motor starts the seats and floors certainly shake.

When the rocket lifts above the flame trench, the exhaust becomes visible, and at a temperature of around 2000 degrees it makes daylight seem dim. Finally the flame envelops the camera. At that distance the noise alone would be enough to scramble your insides. The vehicle appears suspended on a pillar of flame. Meanwhile, rocks are thrown about by the exhaust and they evidently fracture the glass protecting the Imax camera.

After about 10 minutes the fuel is exhausted, and on board, all goes quiet. On realeasing their straps, the astronauts can float in zero g, silent and peaceful. The contrast with the launch is striking. Without further propulsion, they would orbit for years. Astronomy offers as close to perpetual motion as we will get.

The destination of these voyagers is the International Space Station, a new 150 tonne complex orbiting at 8 kilometers per second, 400 km up. The modules at around 20 tonnes each were lifted by Proton and Shuttle, and assembled by astronauts using robotic arms. It is quite similar to the Russian Mir, which re-entered last year after 13 successful years of operations.

With five spacious rooms and complex lighting and air conditioning systems, the ISS is a far cry from the cramped Soyuz capsule used for ascent (or for whole missions in the pioneering days). There is plenty of time to soak up the ambience and admire the views of earth and 12 sunrises a day.

Two tourists (Dennis Tito and Mark Shuttleworth) have so far enjoyed the experience, each paying around US$20M for a week’s trip. The Russians seized the commercial opportunity, while NASA originally dragged its feet and threatened to stop Tito entering the international space station from the Russian Soyuz ferry. I understand from private sources that Shuttleworth accidently looked at the sun (or a reflection) and damaged his eyes; nevertheless he seems to be taking it philosophically.

NASA now accepts “visitors”, providing they meet some basic rules, such as health, criminal records and
drug use. Following September 11, the spectre of space terrorism has been considered, and detailed screening implemented. But I think the best final screening is just to let the crews work and live together on the ground for six months while training. Under varying conditions of stress, fatigue and relaxation, their motivations will be revealed through normal human interactions. No-one has a greater interest in it than their fellow travellers!

We see astronauts and cosmonauts moving effortlessly through the station, and doing zero gravity tricks like squeezing water out of a tube, making oscillating bubbles, and sucking them in. The 3D effect is at its best then, and they throw smarties at each other and the camera, so the Imax patrons can try to catch them.

Eating, sleeping and clowning around are all more fun in zero g, and the Imax patron really feels they are up there chatting to the locals. An Afro hairstyle when not drawn by gravity seems to radiate out towards the cosmos, to the delight of its owner Susan Helms. Australia’s Andy Thomas is seen with a zero-g puffy face in one of the American-Russian greeting sessions on arrival of a new crew.

Unlike many space movies such as Apollo 13 and Deep Impact, in this documentary there is no tension, drama, personality conflicts, or emergencies. The people we see are always cool, calm collected and in control. In the history of space flight, I understand that exceptions to this have been very minor.

The outdoor scenes show suited astronauts floating around the station, looking particularly vulnerable (the first step down in a Big One). The sharp contrast between the extra-bright sun and deep shadow is evident. If you expect to see the zooming, swooping fighters of Star Wars you will be disappointed. Things happen slowly and carefully in space.

Technical details
Part of my own job is to assess the local effects of a normal space launch, and also of course if something goes wrong, so I can appreciate the extreme conditions glimpsed due to Imax. To realise that there are human beings sitting in the tip of the ascending launch vehicle generates around 2 gigawatts of power in its exhaust (equal to a large power station), of which about 2% ends up converted into sound.

The Imax format offers very large screen size, about 30 metres, so that it fills your field of view. Thus the resolution needs to be greatly better than conventional theatres. You can turn your head to focus on a fringe area and still see fine resolution, which gives the feeling of total immersion. Not all Imax movies are 3D, but those that are add another dimension to the realism. (sorry!)

A standard Imax 3D camera can be seen at http://www.howstuffworks.com/imax3.htm. It reportedly weighs 90 kg and holds only three minutes of film. A special compact and lightweight camera was made for this movie, but we never see it. The astronauts were trained to use it; they would have to be very careful not to bump things with it (heavy items are easy to move but don’t stop!). Some Imax space stills can be seen at http://www.nasa.gov/newsinfo/88_imax.html

The film is narrated by Tom Cruise, but if you can ignore his scientology connections and what he did to our little Nicole, then this is soon forgotten. Space Station 3D is an experience I highly recommend.
I remember nothing of the Apollo missions when they took place (I was too young), but I’ve always been interested in space exploration. This interest has blossomed over the last year or so as I learned more about Moon Hoax Believers (MHBs). Consequently, I spent a bit of spare time researching both sides of the Apollo story, and this article is the result.

In the article, I’ll briefly cover some of the claims of the MHBs; the explanations given for why these claims are incorrect; a background of some of the better-known MHBs; the characteristics of MHBs; and a brief list of useful source material for those who’d like to learn more.

**Background**

According to the generally accepted history, NASA managed six manned landings on the Moon between 1969 and 1972 — the Apollo missions. Yet there’s a thin but unbroken strand of belief in the community, nourished by the Internet, that these missions were faked. So did Neil Armstrong utter his famous words on the Moon, or on the world’s largest movie lot?

**Claims**

If you ask MHBs, there’s a lot of evidence to suggest that the Moon landings were faked. These pieces of evidence include:

- There are no stars in photos taken on the Moon;
- There is no crater underneath the Lunar Module on the Moon;
- The shaded sides of objects should be pitch black due to the lack of atmosphere to spread light on the Moon, suggesting that supplementary lighting was used on a set;
- Moon rocks could be faked;
- Shadows in photos diverge and converge, suggesting that the photos were taken on a movie set with supplementary lighting;
- The radiation in the Van Allen Radiation Belts was too severe for humans to travel through.

A range of other claims are made on various web-sites, but these will do for the moment. At first glance, some of these lists of objections look impressive, but in many cases, even an amateur knowledge in the relevant field is sufficient to explain why a particular problem isn’t a problem at all.

**Stars**

The claim about no stars in the photos is a simple one for any photographer. The Moon landings took place early in the lunar day, with a bright sun (there certainly wasn’t any cloud
cover!). By contrast, stars are faint. Any photo exposed long enough to show stars would overexpose anything photographed on the Moon, making the photo useless for the purpose for which it was taken.

Contrary to a reasonably popular belief, astronomy was an unimportant objective for Apollo — astronauts in spacesuits couldn't easily look down telescopes, and their time on the Moon was short. So despite MHBs saying that the Moon would be a great place to photograph stars, the main science conducted by the Apollo astronauts was lunar geology, and the photography they were trained to perform was related to that geology; i.e., photographing the surface of the Moon.

**Craters**

The lack of a crater under the Lunar Module on the surface shows where MHBs lack a little knowledge in engineering.

They make much of the maximum thrust of the LM descent engine of about 4,500 kilograms, with the implication that such a large number means a lot of power. However, it's worth noting that this thrust is considerably less than the 10,000 kilograms of thrust generated by the engines of the Harrier Jump Jet, which also doesn't dig craters when it lands.

But, most importantly, they forget that as the LM continued its descent, it used up fuel, and so became lighter. As a result, the astronauts throttled the engine down to lower levels of thrust. By the time the LM was ready to land, it usually weighed under 2 tons (it weighed 14 to 16 tons at the start of its descent — later lunar modules were heavier) at which time its engine was throttled back to about 1,500 kilograms thrust, blasting out of an engine bell with a diameter of about 170 cm. A few quick sums show that the pressure of this thrust was about 100 grams per square centimetre, with the exhaust gas rapidly dispersing and chilling in the vacuum of the Moon. The exhaust therefore acted more like a dust-vac than an oxy-torch.

**Light scatter**

The theory that the shaded side of objects should be black in the absence of a light spreading atmosphere is, by itself, a reasonable claim.

However it misses one important characteristic of the Moon's surface — the dust itself. The dust has the property, due to the shape of its particles, of preferentially reflecting light back towards its source. This means that dust particles on the perimeter of a shadow do a good job of reflecting a reasonable amount of light into otherwise unlit locations. In this regard, they play a similar role to the reflective sheeting used by photographers to provide diffuse 'fill lighting' when taking photos.

A similar effect is visible on Earth if you look at your shadow on dew-covered grass, early in the morning. Dew drops around the shadow of your head reflect sunlight back at your eyes, giving your head a *Heiligenschein* (the German word for halo). MHBs point to rocks where the shadow is black as they expect, but these are always low rocks, where there's only a small perimeter of dust to reflect the light. In the case of man-size shadows and larger, the dust around the perimeter of the shadow is sufficient to provide the necessary reflection.

**Faked rock**

To say that Moon rocks could be faked is to ignore chemical realities. One of the first things that struck geologists who got to study Moon rocks was how different they were from Earth rocks. They contain no water, and they show evidence of having been formed in a vacuum, neither of which occurs with Earth rocks.

MHBs then turn to the robot mission theory, pointing out that if the Soviet Union could retrieve samples from the Moon remotely, so could the USA. They also forget that NASA obtained 1000 times as much material from the Moon as the USSR did, and it took the USSR three missions to obtain as much material as they did.

**Shadows**

Diverging shadows return MHBs to the world of photographic ignorance.

On Earth, we're used to flat surfaces — roads, paths and parks, so we're generally used to shadows travelling in parallel lines. The Moon, on the other hand, is uneven at all scales, in a way which we just don't encounter in normal life. The closest examples I can quickly think of are building sites and rubbish dumps. Take photographs of people on the sort of uneven ground you encounter here, and I'm sure you'll find their shadows wandering in all sorts of interesting directions.

**The Van Allen Radiation Belts (VARBs)**

These are another favourite topic of MHBs. Yet even with no knowledge of the different types of radiation one
might encounter, this claim can also be refuted. The main claim of MHBs is that the VARBs are too dangerous for humans to pass through without excessive amounts of protection. What they ignore (or do not realise) is that the type of radiation most commonly encountered in the VARBs can easily be blocked by light material, with which the Apollo Command Module was well provided. Additionally, the trajectory of the Apollo missions took the astronauts through a narrow section of the VARBs, where their exposure was minimal.

But the most important point is this: these days, many satellites operate within the VARBs, their electronics hardened against radiation on the basis of data collected by NASA (and other agencies) before and during Apollo. If NASA lied and said that the VARBs were less dangerous than they really are, those satellites would be failing far more often than they do, and NASA would be subject to law suits.

There are other claims made by MHBs, but none are any more cogent than those I've mentioned. I'll leave them for readers to find and refute themselves.

Who are the Moon Hoax Believers?

There are probably three main movers and shakers in the movement of Moon Hoax Belief.

Bill Kaysing: This man was the head of technical publications at Rocketdyne from 1959 to 1963. On many MHB web-sites, he's also credited as being the head of advanced research, though it's not true. His only tertiary qualification is a Bachelor of Arts in English, appropriate to someone preparing documents for publication, but of little use to any-one involved in advanced research in an aerospace company.

Kaysing produced the first MHB book in 1974 (We Never Went to the Moon), and his views have become more bizarre over the years. Probably his worst claim is that NASA blew up the Space Shuttle Challenger to kill Teacher-in-Space astronaut Christa McAuliffe because she refused to sign a contract saying that stars were invisible in space. I'll leave it to the reader to work through the logic of that claim, which is on the Internet at: www.nardwuar.com/vs/bill_kaysing/index.html

Bart Sibrel: Sibrel has produced a book and a video on MHB related material (A Funny Thing Happened on the Way to the Moon). However, his main claim to fame is his ambush style of interview: attempting to gain access to astronauts under false pretences, then demanding that they swear on a Bible that they went to the Moon.

Sibrel visited Apollo 11 astronaut Neil Armstrong at his home, asking for an interview. When Armstrong, a famously private man, declined, Sibrel insisted. Armstrong called the police, and Sibrel was as a result sacked from his job at a local TV station.

More recently, Sibrel had a run-in with Armstrong's fellow Apollo 11 astronaut, Buzz Aldrin. Aldrin agreed to what he thought was an interview with a Japanese TV station, but instead found Sibrel waiting to talk to him. Aldrin returned to his hotel, pursued by a Bible-wielding Sibrel. Sibrel prodded Aldrin in the chest with the Bible, and Aldrin retaliated by punching Sibrel in the jaw, knocking Sibrel to the ground. It's worth noting that Sibrel is half Aldrin's age, about 15 centimetres taller, and more than 30 kilograms heavier. Sibrel also has a web-site: www.moonmovie.com

David Percy: Percy is a strange person to include. He runs a web-site (www.aulis.com) which makes all the MHB claims, suggesting at first glance that he's a typical MHB. Yet, when specifically challenged, he claims that he accepts that the Moon landings took place.

What he claims in addition is that certain aspects of the missions were faked back on Earth. He also attaches his name to 'Whistleblower Theory', which I'll go into in more detail later.

Percy has also produced a book (Dark Moon) and two videos, which reputedly make incredibly tedious reading and watching. One comment I read about the book was that it contained so many errors that a critic used up a highlighter pen marking them all.

And the others?

MHBs are a sad and irritating bunch of people to hang around. But doing so gave me an insight into the way
they think. This has allowed me to determine a few characteristics of the hard-boiled MHB.

They lack any technical knowledge which would encourage them to change their beliefs. As shown by the examples above, even a small amount of knowledge in the fields of photography, engineering, geology or physics would give them grounds for second thought. But few show any inclination to increase the range of their learning.

They lack even a basic knowledge of logic. Time and again they make a claim about some aspect of the Apollo mission which appears suspect to them. They then consider that evidence which supports their theory is evidence which proves their theory. What they don’t consider is that this evidence may have other explanations. They’re thus trapped in the cozy world of circular logic.

Some also show a hair-raising ability to hold contradictory ideas simultaneously. A good example is the UFOs-Aliens web-site (www.ufoaliens.co.uk). One page goes into considerable detail about why the Moon landings were impossible. Another page discusses in considerable detail the aliens and alien structures the astronauts found when they landed on the Moon.

They are inveterate conspiracy theorists, though this can take many forms. All the leading MHBs, and most of the remainder, are already suspicious of their own national government (not all are American), and they parlay this suspicion of their government into what they consider legitimate distrust of any agency of any government, including NASA.

Thus they are people who believe first, then look for reasons to support this disbelief. In this regard, they are very similar to Kennedy Assassination Buffs, Anti-Vaccination Proponents, Holocaust Deniers and Creationists. A lack of supporting evidence, or the presence of contrary evidence, is no obstacle to their views: to them, a lack of supporting evidence means it has been suppressed, and contrary evidence is simply fake. So they can’t lose, as they’ve already decided there’s nothing which could make them change their mind.

**Whistleblowers**

Finally, there are the Whistleblower Believers (WBs), a strange subset of MHBs. These are the people who believe that fake evidence was placed for future generations to discover. Using the circular logic I mentioned above, the discovery of these apparent mistakes is taken as proof that whistleblowers existed.

Some people have come forward claiming to be those whistleblowers, but none has been confirmed as a NASA employee, or employed in a relevant section of a contract company, so their claims must be treated with skepticism.

There are two main claims by the WBs, both relating to photos. One photo shows what appears to be the letter “C” inscribed on a rock in the foreground. Depending on which WB you listen to, the “C” is either an identification letter for workers on the set, or an indication of the centre of the stage. The explanation that the “C” is merely a dust fragment introduced during the scanning process earns little but scorn from WBs. When it’s pointed out that other scans of the photo (including the original) show no “C”, they claim that NASA air-brushed the offending letter out.

The other claim relates to the reseau crosses which are present on so many Apollo photos. These are the 25 thin black crosses, one larger in the centre, the other 24 forming a 5 x 5 grid around it, imprinted on the photo by means of a special lens inserted in the camera. These crosses are used in photogrammetry, the technique of measuring distances from stereo photos. On a number of photos, the lines disappear in the presence of bright objects. WBs claim either that those bright objects were placed in the photo after the reseau crosses, or that whistleblowers, whose job was to insert the crosses, deliberately failed to do so in certain cases, as a whistle blow.

No reasons are ever given as to why either method would have been used. However, the reason the lines disappear is a simple one for any photographer to solve, and again I’ll leave it to readers to work out.

**The Real Apollo**

The Apollo missions were launched in response to President Kennedy’s challenge that America would land a man on the Moon and return him safely to the Earth, before the end of the decade of the 1960s.

As an engineering challenge, it was, and perhaps remains, unequalled. But it was also a one-off. Once it had been achieved, NASA was stranded, with little funding and few friends in Congress, courtesy of the tactics of its second director, Jim Webb. Webb, a consummate Washington politician, had used his knowledge of the location of enough skeletons in closets to guarantee NASA’s Apollo funding. But in doing so, he jeopardised NASA’s future; nevertheless, few at NASA objected.

The Next Generation Telescope, set to replace Hubble, has been named for Webb.

But Apollo deserves our respect in its own right. It almost certainly played an important part in the computer revolution of the 1970s and 1980s, due to the strict miniaturisation requirements of Apollo components, and technology initially developed for Apollo has since been used in other fields. In that regard, it can be seen as a ringing endorsement of the potential benefits of pure science.

The problem with Apollo is that the public lost interest. Despite the inherent dangers of space travel, and the near disaster of Apollo 13, NASA managed Apollo so successfully that it made space travel seem routine, even tedious. The result is that few people paid attention to the stunning successes of the later Apollo missions, which were arguably the most interesting.

**Source material**

The march of technology has vastly increased the amount of information about Apollo available to the general
community, but there has also always been a market for good books. During my research over the last year or so I read a number of books and visited several web-sites, all of which I can recommend.

Books

A Man on the Moon, Chaikin. Probably the best general history of Apollo. Unlike most other books about Apollo, it spends equal time on all missions, paying due attention to the often forgotten later missions.

Apollo: The Race to the Moon, Murray and Cox. This book concentrates more on the engineering of Apollo, and the people who designed, tested, built and operated the spacecraft. It looks at Mission Control and the back rooms whose engineers often saved missions in danger.

The Race, Schefter. A close up look at the early years of the space race, with a considerable amount of information about the Soviet space program. It finishes with the Apollo 11 landing on the Moon.

Chariots for Apollo, Pellegrino and Stoff. The story of the development, testing and use of the Lunar Module. Unfortunately it pays little attention to the later Apollo missions, with their upgraded Lunar Module.

Bad Astronomy, Plait. Reviewed in a recent edition of the Skeptic, the book is more a general astronomy book, but it does devote a chapter to MHBs.

Full Moon, Light. A photographer applied the best available scanning technology of the 1990s to original Apollo prints, producing both this excellent coffee table book, and a photographic exhibition of the same name. The book has just been re-released in a reduced size.

Web-sites

Bad Astronomy: This site contains an extensive rebuttal of Fox TV’s abysmal MHB program, along with links to various sites supporting and opposing MH beliefs. It also has a bulletin board, where people can discuss various matters at least vaguely related to astronomy, such as MHB and even the latest craze, Planet X/Nibiru.

www.badastronomy.com

Moon Base Clavius: This site is devoted to debunking MHB claims. Its web-master is an aerospace engineer with experience in other fields, including photography. The site is well set out, with detailed information on relevant topics. It’s so well set out that one MHB claimed it must be supported by government funding. www.clavius.org

Apollo Lunar Surface Journal: The jewel in the crown. The ALSJ contains transcripts of the conversations between the astronauts and Mission Control from landing to lift-off. These conversations are annotated with comments by the web-master, and by comments from the astronauts themselves, either from the NASA mission debriefings, or in interviews with the web-master, where the personalities of the astronauts really shine through (the late “Pete” Conrad of Apollo 12 is a particular example). The site also contains every photo taken and video sequence recorded during each mission, including some photos taken before launch, either of hardware or of the astronauts during training. A number of photos have been linked together into panoramas, and others scanned at high resolution. It thus provides a highly detailed record of how the missions were accomplished, and an insight into some of the more memorable moments of the missions.

www.hq.nasa.gov/office/pao/History/alsj/

Conclusion

This article grew out of a talk I gave to a science fiction convention. At the end of the talk I said this:

Time for a conclusion. Now I was wondering how to structure it, and I thought of quoting some appropriate words of one of the Apollo astronauts.

But then I thought, “Stuff it.”

Instead, let me leave you with this advice. If anyone suggests to you that the Moon landings were faked, tell them this: “No, you’re wrong. Hundreds of thousands of people worked over the course of a decade to allow 24 men to either orbit or fly by the Moon. Twelve of them got to walk on it. When Neil Armstrong uttered his famous words, he said them on the Moon.”

I just hope we get to go back some time soon.
Letters

Dilution or delusion

Dr David Maddison
Toorak, VIC

In a story concerning homoeopathic “medicine” in the Spring 2002 Skeptic, it was stated that the substance under investigation was diluted to a concentration of one part in $10^{400}$. It was also stated that an aspirin dissolved in the Pacific Ocean would be nowhere near as dilute as what the homoeopathic “vaccines” purported to be. “Nowhere near” would be a gross understatement!

Consider that a typical dose of aspirin might be 300 mg (0.0003 kg). Now, the volume of the Pacific Ocean is $707,500,000$ km$^3$ and the average density of seawater is 1.025 g/cm$^3$. Therefore the mass of the Pacific Ocean is $7.25 \times 10^{20}$ kg. It follows that the dilution of an aspirin in the Pacific Ocean is 1 part in $2.42 \times 10^{24}$. This would make the homoeopathic dilution about $10^{376}$ times more dilute than the aspirin in the ocean.

Other comparisons might be in order. There are “only”, perhaps, about $10^{78}$ atoms in the entire universe. That means that one single atom in the entire universe would be $10^{122}$ times more concentrated than the homoeopathic “medicine”. Figures like these are so extreme that they have no real physical comprehensibility or meaning. Certainly, it is difficult to conceive of any physical mechanism by which these substances could possibly work, especially since they don’t appear to exist!

Scientism

Mark Newbrook
Monash University

James Gerrand (22:3, pp 66-67) describes my discussion as ‘out of date’ and ‘esoteric’; but in fact he himself continues to reveal (apparently with no shame) his ignorance of philosophy (other than at an oversimplified and popular level) and his unwillingness to deal properly with philosophical issues.

The terms metaethics and scientistic are philosophical rather than linguistic, and if Gerrand does not know what they mean he should refrain from comment in this area until he has learned enough to have an opinion worthy of respect.

Mercifully, his viewpoint is far from universal: he is quite wrong in suggesting that (all) scientists and Skeptics hold that there is no ‘realm’ outside the scrutiny of science. I am one of the very many scientists/Skeptics who reject this scientistic position. In fact, as per my letter on p 67 of the same issue, such a position is self-confounding: it cannot possibly be valid, because it is itself an example of one kind of proposition to which it denies validity. Anyone who does accept it is thus confused.

To be more specific: scientists have recently learned much about the psychology of ethical thinking, but the conclusions which Gerrand draws cannot be ‘scientifically based’ in the strong formulation which he adopts, because ethical theory is one of those domains which are only partly within the ‘realm’ of science.

Science and philosophy can be of great assistance to each other; but expertise in both is required for this enterprise. Unsophisticated and incoherent statements in this area play into the hands of the opposition.

Scientism II

Michael O’Rourke
Canberra

Quarrelling with Mark Newbrook, James Gerrand (22:3, p.66, Letters) offers the startling proposition that there is “(no) realm outside the scrutiny of science”.

“Scientism” may not be found in Mr Gerrand’s copy of the OED, but it is a well established term. It is found for example in Robert Todd Carroll’s Skeptic’s Dictionary (on-line at http://skepdic.com/scientism.html).

Briefly, it is the doctrine that decidable or replicable experiments (“science” in the narrow) are the only valid criterion or test of truth or value.

The hard version of scientism says that if a decidable experiment cannot be applied to a set of propositions then they are meaningless or useless or perhaps even false. The word “positivism” is also used (including in the OED).

Soft scientism holds that there is a hierarchy of truths: physics at the top; economic truths second; then historical or ‘historiographical’ truths, and poetic or religious truths the lowest of all. (Mind you, I do not say that there are any religious truths: my concern is to explain scientism.)

We Skeptics (I suggest) are called upon to doubt scientism, just as we should doubt all doctrines foisted upon us by doctrinaire believers. We must acknowledge the possibility that poetry contains the truest of all statements, that history and economics offer the next best kinds of knowledge, and that the findings of the physical sciences occupy the basest rank.

Accordingly I invite Mr Gerrand to reflect whether it is possible that Dante, Shakespeare and even our own Les Murray tell us more about life and
the world than whole shelf-fulls of physics textbooks. Or, if he considers introspection an unreliable method, can he please tell us what sorts of replicable experiments should be applied to test the poets for truthfulness?  
Oh, come with old Khayyam, and leave the Wise

To talk; one thing is certain, that Life flies;
One thing is certain, and the Rest is Lies;
The Flower that once has blown forever dies.

**Delusion**

Tony Jurgensen  
Innisfail QLD

Jackie French wrote in 23:3 (Letters) “… we are entitled to our favourite delusions.” Apart from the delusion where she accuses me of accusing her of believing in life everlasting, if she wishes to indulge her favourite delusions, so be it.

I suspect that many such delusions are imprinted in early childhood, mainly by other family members. While the reasons for doing so may be varied (but most probably from their own imprinting) few, if any, involve extracting resources from those being deluded. But, as can easily be observed, once anyone starts to accumulate some resources (particularly money) others will attempt to transfer these to themselves. Unfortunately, some see the easiest way to accomplish this is by appealing to the weakness of self-delusion, and so they have a vested interest in maintaining/promoting indulgence in such delusions. Advertising, astrology, etc continuously foster such indulgences and the Skeptic regularly exposes such practices.

Regarding Jackie’s examples — politicians can always blame their colleagues for not being able to fulfill their promises and alt med practitioners need only one patient claim relief/cure to nullify any claim of a ‘public lie’. Like the archbishop, they make their living from promises and would be complete dills to admit to deceit.

Writing this reminds me of what I read in the Skeptic of the death of the head of the Flat Earth Society; despite overwhelming evidence to the contrary, I doubt if he would ever have admitted telling a public lie.

**The importance of ‘a’**

P.L.Riley  
Blacksmiths NSW

Ben Morpheat (22:3 p47) seems to have a mistaken idea of what an atheist or an agnostic really is. A theist is some one who believes in a god or gods. An a-theist is someone who is without belief in a god or gods. The prefix ‘a’ is the Greek prefix meaning ‘without’. An atheist does not have a belief and therefore does not have to prove his disbelief — only a positive belief needs to be proved. Ben’s statement that “… atheism is harder to prove than any of the religions” is incorrect. The atheist’s nonbelief is based on the common sense disbelief of anything that cannot be proved or has no evidence that would make it possible or probable.

Agnosticism is not a middle way between theism and atheism — the agnostic, when asked, “Do you believe in a god or gods” should answer ‘yes’ or ‘no’. The usual agnostic reply, ‘I don’t know’ is not an answer to the question but an evasion of it. Agnostic belief (?) is working to a different premise from theist or atheism. Again the prefix ‘a’ in a-agnostic means without ‘agnosticism’. Gnostics were an ancient religious sect that believed in gods. I hope this clears up a little misunderstanding.  
(Not quite. Gnosis in this context is the Greek word for “knowledge”. Ed)

**Aaaarrrrggghhh....**

Richard Sakurovs  
North Ryde, NSW

Perhaps the people who believe in the power of feet to describe personalities (22:3) want to be leg-ends in their own lifetime.  
(We know where you live, Richard. Ed)

**Ground Water & Water Divining**

Robert A. Backhouse  
Closeburn, QLD

If the claims made by water diviners could be legitimately sustained then their services would be in much greater demand. In many areas of Australia and the world, sub-surface water is the main water source and since subsurface water is about 1% of the world’s total water, the pseudo science of water divining has its attraction in desperation and want.

Sub-surface water originates from rain falling on the land with the percentage soaking in depending on soil porosity, slope of the land surface, vegetation type and of course rain intensity. Some of the rain evaporates back into the atmosphere, some runs over the surface and the rest penetrates into the soil where plants take up a share in their roots. The remaining water penetrates deeper into the cracks and voids of the subsoil form-
ing a saturated zone. The upper surface of this saturated zone is called the water table and its depth fluctuates according to the seasons. Ground water travels slowly under the force of gravity as the water table has similar undulations to the surface topography. Surface streams, springs and swamps are developed where the water table intersects the land surface.

Ground water flows are much slower than surface streams so any claim by a water diviner to have located an underground stream is spurious with the exception of some limestone regions where there may be an underground stream flowing in a tunnel. The water flow from a successful bore hole depends on the porosity of the rocks surrounding the bore hole and the pressure of the underground water. Companies providing boring services often pretend to divine an appropriate site but actually make a selection that suits their equipment or the customer’s convenience.

From the above discussion, areas with reasonable rainfall must have some ground water so drilling a hole anywhere will be productive, but whether the water quantity or quality is satisfactory will certainly not be within the determination of the water diviner. The Borderline Skeptics do a significant public service in debunking this purported skill which is often offered for a fee.

Steve Roberts reported the details of an extensive test of about 50 self-proclaimed water diviners in *the Skeptic* 21.4 page page 40. The article detailed the test conditions so that the participants could not claim bias or get any free kicks. The test in statistical terms is called a Bernoulli trial (named after a Swiss Mathematician) with similar chance elements to the fall of a tossed coin. At each container the diviner is either right or wrong on his assessment of its contents. In statistical terms, each assessment is described as a success or failure with a 50% chance of success and failure.

To calculate the third column the probability is applied to the number of participants then we get the probable numbers of successful participants for each number of bottles rounded to a whole number as we cannot have a fractional contestant eg: 10 containers correct = 0.1762 \times 52 participants = 9.1624 = 9

If the two graphs of Steve’s article are compared, it is easy to see that they are close and the contention that the diviners are guessing is sustained. If the number of diviners was increased, the graphs would be much closer. Detailed examination of the diviners results showed their guessing was worse than could be expected and apart from the lady who had 14 successes, the more improbable effort of two diviners who only managed 5 successes shows that the Skeptics Prize is very secure from water diviners.

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(C = Containers correct, P = Probability, N = Probable No of Contestants expected to get that score)

Beware!

Garry P. Dalrymple
Earlwood NSW

There is a powerful therapeutic substance abroad in the community that is being made available without any apparent concern for long term health consequences.

Many will be aware that in trials with traditional alternative medicines, ‘placebo’ medications have frequently proven to be a more powerful, effective and reliable treatment than these health fund reimbursed treatment modalities. In these trials, the substance has been found to be effective at very low and in some cases, undetectable concentrations, ie, there may be no safe level dosage for placebos that avoids medical consequences!

The active ingredient found in many placebo tablets is common sugar. This substance is unregulated, can be bought over-the-counter without prescription, and is known to be present in similar quantities to therapeutic doses in confectionery that is openly marketed to children!

Who is attempting to alert the public to the possible risks to them (and their children) of overdosing on these ‘harmless’ little sugar pills? No One!

The conspiracy is very widespread. Even reputable Alternative Health Practitioners refuse to discuss with their patients the powerful effects of placebo treatments in comparison with their own ‘traditional’ therapies.

Even now, people you work with, or members of your own family could be caught in the vicious spiral of placebo abuse. Many of your friends may be unaware that they are actually ingesting placebobs, or may be in denial!

How will parents be able to tell if their child has a placebo problem without a more public discussion of the symptoms of placebo abuse and addiction?

Wishing you well in all things (but not knowing the safe dosage).
Quacks use unsolicited testimonials, so why shouldn’t we? This is but the latest one from a satisfied subscriber.

I have just received my Great Skeptic CD and felt I had to write to tell you how brilliant it is. I’m sure you already know this and lots of other people have said this already, but I just wanted to add my voice to the no doubt deafening roar. I’ve seen a lot of abysmal CDs in my time — this one would have to be the best, all the functions you want are there and it actually works.

Ian Walker
Bowen QLD

We also have a glowing tribute from the Danish Skeptics web site, but we won’t embarrass those few readers who speak no Danish.

Multi-media personalities wouldn’t be without one.

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