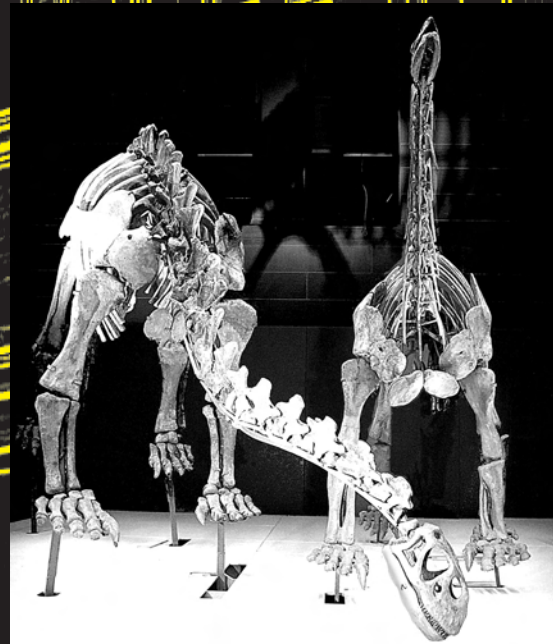


# the skeptic

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Shunosaurus  
lives @  
the  
Australian  
Museum



Eureka Winners  
Announced!

# the Skeptic

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# Contents

## Regulars

- 3 – Editorial – Dilution or Delusion?
- 4 – Around the Traps
- 61 – Forum
- 65 – Letters

## Features

- 7 – You Are Not Immune – *Martin Hadley*
- 9 – Letting the Side Down – *Peter Bowditch*
- 10 – News – On the AltMed Front
- 11 – News – Eureka Winners Announced
- 14 – Trust Me, I'm a Science Communicator – *Rob Morrison*
- 17 – Poesy: Bachelor of Seance – *Jim Wilshire*
- 18 – A Case of Science and Justice – *Bret Christian*
- 23 – How to Identify Good Science – *Anthony Wheeler*
- 27 – The Light Fantastic – *Sir Jim R Wallaby*
- 29 – This Little Piggy – *Karen Stollznow*
- 33 – Lead Balloon: Skeptics in Wonderland – *Richard Lead*
- 36 – Good Word: More Wordplay – *Mark Newbrook*
- 40 – No Room at the Hinn – *Peter Bowditch*
- 42 – Cold Facts: Antarctic Science – *Stephen Martin*
- 45 – Chinosaurus in Sydney – *Barry Williams*
- 47 – Musings of an Agnostic – *Ben Morphett*
- 49 – Russian Roulette – *Annie Warburton*
- 50 – Doing it Tough: Church Taxation – *Liz Armstrong*
- 53 – Breath of Fresh GASS – *Richard Saunders*
- 54 – Review: Investigating God – *Rob Hardy*
- 56 – Review: Science With Humour – *Margaret Kittson*
- 58 – Review: Signs – *Helen Vnuk*
- 59 – Review: Cosmos – *Richard Saunders*
- 60 – Review: Reviews in Brief – *Colin Keay, James Gerrand*
- 68 – Branch Notes
- 69 – Notice: National Convention
- 70 – Notices

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# Dilution or Delusion?

*Meningococcal meningitis* is quite a rare disease – it is estimated that approximately 200 cases occur in Australia each year, but it results in a high rate of fatalities (around 30) and it can leave devastating effects in those who survive. Despite its rarity, it attracts a great deal of concern that might, to some, seem out of proportion to its prevalence. However, it is a particularly horrible disease in that the people most at risk are young children and those in their mid- to late-teens, and that its progress from rather commonplace symptoms to a full-blown threat to life is so incredibly rapid.

It is not surprising, therefore, that this disease has attracted a great deal of attention from both the medical authorities and from the news media. Furthermore, while there is a vaccine that prevents infection, it is not universally applicable to all strains of the disease, nor is it widely available. The Federal Government, seeking to make best use of the scarce (and expensive) vaccine, has recently announced that the stocks available will be used to immunise children aged one year, and 15-16 year-old adolescents. Few in the community would quibble with that, but that is not the issue that concerns Australian Sceptics

Through the untiring efforts of Cheryl Freeman, whose reports on dubious “therapeutic” devices and practices have appeared many times in *the Skeptic*, we became aware that various “natural” or “alternative” practitioners were prescribing “homoeopathic meningococcal vaccine” as a preventative measure for this disease and similar “vaccines” for a number of other very serious diseases. Furthermore, Cheryl was able

to acquire these “vaccines” and homoeopathic “prophylaxes” for a wide range of other very serious diseases (including smallpox, TB and malaria), by mail, and from a number of different suppliers, with no difficulty at all.

We have in our possession three bottles (see photo) purporting to contain Homoeopathic Meningococcal Vaccine, Hepatitis B Vaccine and Influenza Vaccine, each bearing a number “C200”.



*Homoeopathic “vaccines” recently purchased via the mail*

In homoeopathic parlance this means that the active ingredient has been diluted by a factor of 1 in 10<sup>400</sup>. (That’s correct, a one followed by 400 zeros. One does not need to be a mathematician to realise that an aspirin dissolved in the Pacific Ocean would be nowhere near as dilute as these “vaccines” purport to be.) It is important to understand that there is precisely no evidence to suggest that any of these “vaccines” have any effect at all in protecting consumers against any of these diseases.

Alarmed, Cheryl (supported by *the Skeptic*) sought to bring this state of affairs to the notice of the authorities and the media. It would seem obvious, given all the media attention being focused on outbreaks of meningococcal, that a story about a

fake vaccination against it should have been considered highly newsworthy, but that was not the case. The story was transmitted to most media outlets in Australia, however, only the *Newcastle Herald* (briefly) and the *Sydney Daily Telegraph* ran with it. Unfortunately, the *Telegraph* story gave credit neither to Cheryl, nor to *the Skeptic*, and ran the story as though it was the result of its own research. It was later taken up by the *Ch 10 News* and *NBN 3 News* in Newcastle (Cheryl Freeman’s home town). It seems that “investigative journalism” no longer applies to the Australian media (see also Peter Bowditch’s story p9).

An unsatisfactory state of affairs, but at least it brought one good result. The TGA immediately banned the use of the Homoeopathic Meningococcal Vaccine, although whether this extends to all the other such “vaccines” (including that for hepatitis B - a far more prevalent disease) we have yet been unable to determine.

As we have constantly reiterated, although there is a great deal of public acceptance of so-called “alternative” therapies, and although some of them may well be positively beneficial, and others relatively harmless, the false sense of security offered by worthless remedies or preventatives, widely used and with no controls on their use, poses a serious threat to the health of the community.

It is simply not good enough that the exposure of these should be left to a dedicated few, such as Cheryl Freeman. The authorities must be more active in investigating abuse, as the media are reduced largely to forms of cheap entertainment.

*Barry Williams*

# Around the Traps

## Of a Skeptical bent

The following message was posted to our web page that invites nominations for the Bent Spoon Award. It purported to come from someone named Patty Jackson, and it touched the Editor so deeply that he felt compelled to share it, along with his heartfelt reply, with our readers.

*I would like to put Barry Williams in for is own award. Someone who would be so stupid to come against the Man of God. He deserves an award. "For God said, He is a consuming fire." So if this gentleman is feeling presser and everything is going wrong in his life, he might consider repenting! For the Words of our mouth can either bring life or death, and you can't curse what God has blessed! You will definetly be in our prayers!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!*

That many exclamations demanded a reply:

*Thank you very much Patty. That's the first time I have ever been nominated for any award and I appreciate your kind thoughts.*

*How did you know I was feeling "presser"? I have this all-consuming urge to iron all my shirts, underwear, sheets, towels (not easy), shoes (even harder) etc. Do you really think that if I repent it might stop?*

*However, might I just beg you NOT to remember me in your prayers, please? Given your standard of literacy, rather than an immortal soul, I might wind up with an immoral sole and I wouldn't know what to do with a libertine fish.*

*Have a nice eternity.*

*Barry Williams  
Editor  
the Skeptic*

## Phone perils

However, it's not all beer, skittles and award nominations here at Skeptics Central (no one can recall the last time we played skittles). Among the more testing events are the late night calls from people who have heard something about the Skeptics and feel it is their bounden duty to set us straight. Here are a couple of examples from our files.

Some years ago we did a pre-recorded interview with ABC Regional radio on a topic that had something to do with the weather. We were told it would be put to air on the regional network in the early am hours within the next few weeks – and sure enough, they did. We know this because one morning, at around 2.30am, the phone's shrill call aroused the Editor from sweet dreams of sugar-plum fair-

ies, to be greeted by an irate citizen of western NSW, who wished to take issue. He had, he informed the bemused Ed, while living on the central coast, once diverted a violent storm from its path simply by concentrating hard and wishing it away. He also had other proofs of his miraculous abilities that he wished to discuss.

By this a now fully-wakened Ed had gained control of his vocal chords and asked "Do you know what time it is?" The caller assured him that he did and to the next question, "Why, then, did you think this would be a good time to ring me?" answered with the astounding *non sequitur*, "I didn't think anyone would be there. In any case, you've just been on the wireless, so you should be OK to talk".

He then launched into a diatribe about closed-minded people, refusing to be deflected from his course despite many hints from his exasperated listener, who was forced, in the interests of sleep, to hang up. We haven't heard from him since, so as far as we know he is still talking to a dead phone.

## Bees in bonnets

More recently we received a similar call from a bee keeper (BK) from the Upper Hunter at around 10pm. The conversation went something like this:

**BK:** *Are you anything to do with the Skeptics?*

---

**ED:** (warily) Yes.

**BK:** *I'm a bee keeper and I have found a cure for a bee disease.*

**ED:** U-Huh.

**BK:** *Have you heard of Dr Hulda Clark? She is an American doctor who has a cure for cancer.*

**ED:** *Not quite. She is an American quack who has been exposed as a fraud and has spent some time in prison.*

**BK:** *Well she cured me. I didn't have cancer but I did have arthritis which is a sort of bone cancer.*

**ED:** (hardly believing his ears) *Pardon? Oh no it's not, it's a different disease entirely.*

**BK:** *Well have you heard of (?), one of the world's greatest soil scientists?*

**ED:** No.

**BK:** *He also cured cancer – with laetrite.*

**ED:** *Not so, that is another debunked fraud.*

**BK:** *What is your relationship to Jesus Christ?*

**ED:** (utterly perplexed) *What???*

**BK:** *Have you read his words?*

**ED:** (getting a trifle testy) *Did you ring me at 10 o'clock at night to discuss religion?*

**BK:** *It's not about religion, it's about the word of Jesus. Jesus can cure you.*

**ED:** *And that's not religion???* *Why are you ringing me?*

**BK:** *I have this cure for a bee disease and I only need a little money so I can release it to the world.*

**ED:** *Why ask us? We are not into bee diseases. We expose frauds.*

**BK:** *So you don't want to help?*

**ED:** No!

**BK:** *Oh, all right then. Sorry I rang you.*

**ED:** (relieved) *Not half as sorry as I am.*

**Question:** Should we just have told him to buzz off?

## And a bouquet

Very, very occasionally we receive correspondence that makes all our endeavours seem worthwhile.

In March, Helen Vnuk had favourably reviewed *The Full Facts Book on Cold Reading* by Ian Rowland (*the Skeptic*, 22:1).

Richard Saunders sent a copy of the review and a *Great Skeptic CD* to Ian Rowland in London, and he replied with this very complementary message.

*Dear Richard,*

*Thank you SO much for the package you sent over, which arrived this morning. I enjoyed your letter, and the review of my book, but most of all I've been having a wonderful time searching through your CD.*

*To my shame and regret, I've never come across the writings of Mr Barry Williams before, but I find his writing absolutely wonderful and, of course, achingly funny. I've been enjoying myself so much just browsing various articles and reviews written by him, and laughing out loud at regular intervals. It is a rare joy to discover a brilliant mind serving up trenchant observation with genuine wit, and I can only admire Mr Williams' seemingly limitless gifts.*

*There is, of course, much else besides to enjoy on the CD, but it just happens to be Mr Williams' contributions that have stood out for me thus far in my browsing. I hope you'll pass my comments on to Barry, or let me contact him directly.*

*It was really very generous of you to contact me, and to offer to send me this glorious and eminently enjoyable CD. You have my sincere thanks and gratitude. Is it commercially available, can people buy it? I ought to plug it to all my visitors and customers.*

*Kindest regards,*

*Ian Rowland*

*Visit [www.ian-rowland.com](http://www.ian-rowland.com) today. Home of the most amazing cards in the world and the famous Levitating Cat.*

Of course, since he read this, there's been no holding our Esteemed Editor back. He has taken to sporting a green carnation in the buttonhole of his singlet, declaring his genius all over the place and keeping his eye out for the sons of minor aristocracy.

## New project from Saunders of the CD

Meanwhile the irrepressible (indefatigable? peripatetic? some word that means he never stops?) Richard Saunders, newly elected President of the NSW Skeptics, Father of the Great Skeptic CD, Elector of Brandenburg (no, that can't be right) has been at it again.

Fascinated by the phenomenon of water divining that, more than anything else, characterises an Australian approach to the paranormal, Richard has been hard at it producing a half-hour video documentary on the subject.

Now that it is almost completed, Richard assures us that it will soon be available for sale through *the Skeptic* and our new On-Line Shop.

Watch out for it.

## An eagerly anticipated book

Recently we were delighted to be contacted by a representative of British publisher, Weidenfeld & Nicolson Illustrated, advising that the paper, 'Information Challenge' (*the Skeptic*, 18:4) had been selected for inclusion in a collection of works by Richard Dawkins. Titled *A Devil's Chaplain* it is to be published in February 2003.

As it is always a keenly anticipated pleasure to read any of Prof Dawkins' writings, we'll be keeping an eye out for it and plan to have it reviewed.

## Dead lucky

Those who have pay TV might have noticed that a new(ish) phenomenon is exercising the intellects of those who have to fill many hours of airtime.

The Arena channel has for some time been showing a charming little segment called *Crossing Over with John Edward*, in which the eponymous presenter purports to make con-

tact with the deceased loved ones of people in the audience. (Non-pay viewers need not miss out, as Channel 10 will be taking this show shortly.)

It is a measure of the dedication with which we approach our task at Skeptics Central (and the strength of our stomachs), that we have watched more than one of these programmes.

They seem like little more than the old spiritualism craze that swept the world in the late-19th – early-20th Centuries, spiced up with modern showmanship and more than a little skill at cold reading – not to mention adroit editing by the technicians. Essentially, Edward can be seen fishing for clues, cold reading the audience, reinforcing positive responses and telling people what they want to hear.

There's also a bit of amateur psychology used here – people attending the show are very likely to be those who are grieving and many would be suffering from self-imposed guilt feelings. "Did I really let Mum know how much I loved her before she died?" sort of thing.

Such people are seeking reassurance and that is exactly what they get from Edward. All the "departed contacts" he makes are doing fine in the afterlife and are forgiving of real or imagined conflicts in this one. He has never been heard to say "Brother Kev is suffering eternal torments in the fiery pit, and deservedly so", nor does he say "Sister Bev has still not forgiven you for stealing her pet rabbit".

If you want to see this stuff in person it's not going to be cheap. Edward will be visiting Australia in February 2003, and we are told that he has already sold out a 4000 seat venue in Sydney, and twice that number in Melbourne, at \$75 a pop. We hear that his promoters are seeking larger venues so that even more people can be exposed to this shoddy pop psychology.

Assuming each performance goes on for two hours (max), it is unlikely that more than 40-50 people (max) will be reassured by personal "contact", which makes for pretty expensive entertainment for the remaining 3,950.

We could offer an equally valid service of reassuring grieving people for the price of a phone call, but our conscience would not allow it.

### The King is dead...

We all know that Elvis died 25 years ago last month (unless we have been living in a cave, that is) but it seems the late crooner has been acquiring some extra posthumous kudos in the realms of irrational kookery of late.

First of all, Toon Nieuwenhuisen, a spirit medium and professional Elvis impersonator in the Netherlands town of Deurne reported that a plaster bust of the King burst into tears on August 9. In support of the authenticity of the phenomenon, Toon said, "The tears you can see started at 10 o'clock. When you taste it, it's salty. It's a miracle".

Convinces us – we simply can't imagine how anyone could possibly fake salty water.

Uhuh!

### ... Long live the King

Meanwhile in the USA, artist Roger Baker has mown a giant portrait of Elvis into a 50 acre New York field to mark the 25th anniversary of the King's demise. Press reports said he used "traditional mowing techniques", but we can't believe he really used an old Qualcast hand mower (maybe these traditions differ in the US).

Unfortunately artists are not renowned for their commercial savvy, so Mr Baker proclaimed his project beforehand in the public media. Had he merely dropped a few subtle hints about mysterious lights, he could have charged large fees to "cerealogists" from around the world flocking to his field to pronounce that rock and roll originated in the Pleiades cluster.

Thankyouverymuch.

### Bum notes

As if reading palms was not esoteric enough for those who find the world to be incomprehensible without some sort of signs or portents, news has reached us of a blind German mystic who promotes the idea of reading buttocks (dubbed by some wit as "the new science of arsetrology").

He claims that the predictions made from reading creases in buttocks (presumably using Braille) are much more precise than from those on palms.

Frankly, we think this bloke (in common with most new agers) wouldn't know his arse from his elbow.

### What a booby

Meanwhile, another story from Germany (whatever happened to "Only in America"?), tells of research conducted into the health effects (on men) of ogling women's breasts.

The survey, as reported in the *New England Journal of Medicine*, claims that a 10 minute observation has the same beneficial effect as a 30 minute aerobics work-out, resulting in "lower blood pressure, less heart disease and slower pulse rates" than those not so engaged. We can only assume that this is an overall effect and not specific to the actual period of therapeutic perving.

This news has been greeted with acclamation by several members of the NSW Skeptics committee.

### Pebble dashed

Readers might be familiar with a curious tale of one William Kamm, the self-proclaimed "Little Pebble", who lives on the NSW south coast. Some decades ago he had formed a cult based on apparitions of the Virgin Mary, claimed he was told he going to be the next Pope, was excommunicated by the Catholic Church and was suing the Church for around a billion dollars.

Kamm was arrested in August, charged with four counts of aggravated sexual assault, and two counts of indecency. A second person was charged with two counts of aggravated sexual assault, relating to incidents 10 years ago. Weapons and ammunition were seized during a raid on the cult's headquarters near Nowra.

Wally Anglesea has been tracking Kamm's activities for years and up-to-date information can be found on his web site: [www.users.bigpond.com/wanglesepebble.htm](http://www.users.bigpond.com/wanglesepebble.htm)

*Bunyip*

# You Are Not Immune

## A Warning to Quack Vaccine Producers

Where science and reason fail, give the law a try

*But evil men and seducers shall wax worse and worse, deceiving, and being deceived*

II Timothy 3:15

You could criticise Australians for a tendency to respect criminals and low-lives. If it is not ridiculous to refer to the convicted murderer Ned Kelly as a 'hero', it reveals a very easy going attitude. So what do Australians think of the sellers of quack medicines? Likeable rogues who harvest a little from those with more money than sense? Probably a less friendly view is taken of those who give a false sense of hope to people suffering from something serious, which might respond to proper treatment. We see little action by the authorities, as other articles in this issue show.

However easygoing the community and the authorities might be, I suggest it is only a matter of time before a customer succeeds against a quack in a civil damages action. I predict this will happen despite the trend to reduce recovery for many types of claim. I will outline how this might happen, bearing in mind that any such case will depend critically on its own facts.

If the reader will permit me one or two brutal over-simplifications.

There are three ways the case could be put: contract, statute and negligence. Firstly contract. A popular misconception is that you cannot have a contract unless there is writing. Some types of contract must be written but most contracts are oral. (Don't confuse oral with 'verbal' which means 'in words'. Written contracts are verbal too.)

### Contract

Whenever someone buys something, there will be a contract. By the way, that simple fact is why a homebuyer should always obtain legal assistance. The buyer might be up to the mechanics of the conveyancing but what if they get into an argument with the seller about the contract?

When a person buys a quack 'vaccine' there will be a contract, even if all the buyer does is to point to the bottle and hand over the money without saying a word. What are the terms of such a contract? The law implies various terms into every contract for the sale of goods. In some respects, the parties can override the implied term with their own agreement.

When the buyer has indicated that the goods are required for a particular purpose, and has done this in a way that shows that they



Martin Hadley is a barrister and newly appointed Secretary of the NSW Skeptics.

## You Are Not Immune

are relying on the seller's judgement, then the Sale of Goods Act will imply a term that the goods should be fit for that purpose. You can imagine a person asking for a 'vaccine' against a specific disease. If they are given something that could not work, there is a breach of contract. If they get that disease, that is actionable damage.

There have been substantial awards to plaintiffs made ill by badly prepared food. The damages include pain and suffering but the biggest component can be lost earnings. An example was the London sandwich shop whose bodgy mayonnaise put two thirds of the partners of a law firm out of action for several days. (Lawyer-haters please stop laughing!) A person who gets sick after taking a homeopathic 'vaccine' could also pursue such damages. Consider the compensation for a high income earner who is off the track for a couple of months with something nasty.

### Statute

Another form of liability is a breach of statutory duty. The Trade Practices Act allows a buyer, who has suffered damage because of certain conduct, to claim damages. (The Act does many other things but I am just looking at what is relevant to the buyer of quack products. Note that the Commonwealth Act applies to companies and the NSW Fair Trading Act applies to individuals. It has similar provisions.)

The Act gets its sharpest teeth from simple concepts, in particular misleading and deceptive conduct. A nice touch is that when a person gives an assurance about a future matter, or makes a prediction about something such as how a product will work, then they might have to show that they had a reasonable basis for that prediction at the time.

Quacks have responded to the Trade Practices Act by wording their labels so that they usually promise nothing concrete. When we see how much people spend on these products, compared to ones that work, we have to wonder how the drug companies blew it so badly as to lose the

trust of these customers. Meanwhile if the quacks cross the line and make an irresponsible promise, they might be pounced on. One can envisage a Court finding that calling something a vaccine involves an assurance or prediction for which the seller must show a reasonable basis.



"Vaccines" bought in Sydney

### Negligence

I also mentioned negligence. To summarise a lot of law, when a person's actions can affect another person, such as another driver on the same road, they have a duty to take reasonable care to avoid foreseeable harm to the other person. Special principles apply to a person who 'holds themselves out' as having certain expertise. The law of negligence is another string to the disgruntled buyer's bow.

You might wonder why you would run a case in negligence if you had a good contract case or Trade Practices action. One answer, which can give you a hint of just how hilarious the law can be, is that each type of case probably has a different limitation period – the time after which it is too late to proceed. The recipient of a dud vaccine suffers a breach of contract at that point of time, and time runs, even if they don't get sick until years later. However with negligence, time will run from the date of the illness, most likely, as it were, so to speak. (Judges get some strange ideas about limitation principles.)

### Benefit of litigation

To take money from someone for a quack 'vaccine' or bogus therapy must require genuine ignorance, or a disconcerting absence of conscience. When I see a peddler of quackery start back-peddalling once the scrutiny has begun, then I suspect that they knew it was a try-on all the time. We recently saw the manufacturer of the banned 'vaccines' – and that was the word that he chose to put on the label – saying that they were really used to ameliorate the effects of other vaccines. Judges will not put up with that sort of nonsense. Words like 'vaccine' and 'vaccination' have plain English meanings. There must be inoculation with a mild form of the virus etc. The defence might call expert evidence that no vaccine is ever a guarantee, but that would not help the seller of a homeopathic 'vaccine' that could not work because it had no active ingredients.

I despair at some of the pointless cases I see clogging the Courts but I acknowledge that sometimes litigation is needed to provoke reform. We have seen that the Catholic Church was content to conceal the disgraceful conduct of some of its priests. Instead of punishment, sex offenders have been moved on to new unsuspecting parishioners. I expect that this has been going on since Holy Mother Church was set up, and it would have continued indefinitely, but for the damages recently awarded by Courts or paid in settlements. There are pensioners who have gone without over the years to put a few dollars in the plate each week. Now they see funds vanish in huge payouts to victims whom the Bishops rebuffed for years while they cocooned serial offenders with secrecy and priestly status.

I hate to think of any person suffering through reliance on quack medicines but society might benefit from a few hefty payouts to victims, or if the person has died, to their dependents. I wonder what sort of insurance these quacks have?





# Letting the Side Down

**Chronicling a seriously missed media opportunity to expose quackery**



*Peter Bowditch is a Vice President of NSW Skeptics and an indefatigable exposé of quackery.*

A few months ago, I was asked by a producer from a high-rated investigative television current affairs show to help with a story they were developing about cancer quackery in Australia.

It soon became apparent to me that no research had been done and that the producer had no clue about the scale of the problem, or even where to start looking. I was asked to make suggestions, so I developed a sketch for a story based on not-a-medical-Dr Hulda Clark. This would have given them everything they needed for a good story.

This quack's books are available in many bookshops, so there was the possibility for good visuals, some short interviews with booksellers about the ethics of selling trash, and Clark was suing me at the time, so there was both a local angle and evidence that she could not answer critics other than by trying to shut them up.

Clark has several outlets in Australia for her "zapper" and treatment protocols, but the one that caught my attention was through an Adelaide endodontist. Not only had this man received a form of medical training, but he had undertaken postgraduate work to obtain his specialist qualifications. He was just the

sort of person who should know better, and was a perfect example of how the authority stemming from one area of expertise could be used to fool people in another context.

When I gave the story package to the producer, it was suggested that I should make appointments with the Adelaide dentist and with another Clark product seller in Melbourne (I live in Sydney) and that I should go along to each with a list of symptoms, and report on what was said, what recommendations and diagnoses were made, and what treatments were offered.

No corresponding suggestion was made about paying for my air fares and accommodation, nor compensating me for time away from my business, nor indemnifying me against any legal action by the quacks. As these people had approached me for help with the story, but now expected me to bear all the costs and risks of the investigation, I lost a bit of enthusiasm at this time.

It seems that the television program wasn't really enthusiastic either, if they had to do any of the work, and I never heard any more about it. As far as I know, no story about cancer quackery has since gone to air on that particular show.

I had forgotten about this episode

until this week, when I heard that an Adelaide dentist was under investigation for offering fraudulent cancer cures, a matter compounded by the fact that he was acting both outside his area of expertise and outside the legally-ordained scope of his practice. One of his claims was that he could cure mesothelioma by extracting asbestos with some sort of electrical device. He had also had a patient die because she had foregone conventional cancer treatment, on his advice.

The story sounded familiar, and, sure enough, it was the Clark follower whom I had handed to the television people months ago. Had they proceeded with the story, or even if they had just interviewed the charlatan and given him a fright, that woman could have been alive today. Someone died because someone else was too lazy to do their job.

Remember that the television people approached me for help, but they gave up when some real investigative reporting by them was required. You might ask why I didn't go after the quack myself once I had discovered him.

A good question, but I have neither the time, the financial resources nor the necessary tools, expertise and authority to chase people like this. The police can't do anything until it looks like a serious crime has been committed (which usually means that someone has died) and the various regulatory and corporate authorities can't do much to people who are marginally within the law. Both the police and the regulators are busy enough anyway with the case loads they have now.

Exposure is the best way to fight these criminals, both to shut down individual examples and to warn consumers about the risks of dealing with quacks. I can do something with my web site, but I can only reach a few thousand people each week and I am severely restricted by Australia's draconian defamation laws.

The mass media can reach millions with a single television program or newspaper story and they

have the lawyers to vet the stories for legal landmines (and the deep pockets for the times when they get it wrong).

Still, there's no point in giving up. One day the news programs will

have a story about some sick person deceived by a lying charlatan and there won't be any story on the same day about a cat caught up a tree to take precedence for air time.



### News

## On the AltMed Front

### Selling cellulite

We were approached recently by the Dutch Skeptics, seeking information about meaning of an AUST L listing as applied by the TGA.

It seems that a manufacturer of a preparation being sold in the Netherlands, that is alleged to "treat" cellulite, is using the fact that the product is "listed" with Australia's TGA as proof of efficacy.

We were able to advise our Dutch colleagues that an AUST L listing asserts no such thing, merely that the product is not toxic.

### Vitamin pills a 'waste of money'

According to a report by a clinical trial services unit at Oxford University and published in *Lancet*, taking vitamins to protect against disease is a waste of money,

Professor of Medicine and Epidemiology at Oxford, Rory Collins, who headed the £21m five-year British Heart Protection Study, said:

*Over five years we saw absolutely no effect. Vitamin pills are a waste of time. There was no evidence of any protective effect against heart disease, cancer or any other outcome. They are safe but they are useless.*

*There is a lot of evidence that vitamins in the diet are a good thing such as from eating fresh fruit and vegetables.*

The study followed 20,000 people aged 40-80 from 69 British hospitals and looked at vitamins as well as the effect of cholesterol-lowering statins.

They found that the cholesterol lowering drugs worked within a year and had major effects within five years.

On the other hand, spokespeople for 1. a major pharmacy chain, 2. the Health Supplements Information Service, and 3. Consumers for Health Choice said, variously:

*... vitamins have widely proven benefits when taken by the general population as a supplement to a balanced diet or to boost nutrients.*

*... they were not intended to be used over a short time to treat or prevent serious illness among people at high risk of heart disease.*

*There are thousands and thousands of studies to show that nutrients are beneficial.*

*46% of households in the UK buy a vitamin supplement and they can't all be wrong.*

*The report only looks at the benefits of vitamins and supplements for preventing chronic illness. Vitamins and supplements are not intended to treat or prevent serious illness.*

All of which sounds just a little bit like special pleading to us. *Cui bono?*

### Thanks for the memory

Despite the much hyped claims for it, a new US study has found no evidence that *ginkgo biloba* actually sharpens the minds of healthy adults, as manufacturers have suggested.



# Eureka Prize

# Winners

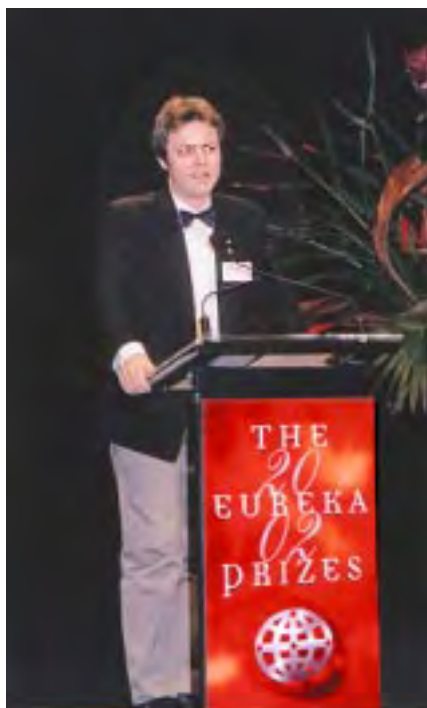
Science met showbiz at the glittering galah Australian Museum Eureka Prize dinner for 2002, held on 13 August at the Fox Studios in Sydney. Compered by Amanda Keller and Adam Spencer the evening saw almost \$180,000 awarded to 18 Prize winners.

Welcoming the 700 guests, who included leading figures from the worlds of science, commerce, politics, journalism, and a coven of raucous Skeptics, Mike Archer, Director of the Australian Museum said:

*The Australian Museum Eureka Prizes, begun in 1990, are now Australia's pre-eminent and most comprehensive national science awards. They raise the profile of science in the community by acknowledging and rewarding outstanding science-related achievements across science, engineering, journalism and education.*

Brian Sherman, President of the Australian Museum Trust, congratulating the winners, said:

*The Eureka Prizes are made possible through a unique partnership between the NSW State and Federal Governments, major private sector organisations and institutions. I pay tribute to these groups and to their commitment to the pursuit of scientific excellence in Australia.*



Richard Saunders announcing the winner of the Skeptics Eureka.

## The Winners

### Australian Skeptics Eureka Prize for Critical Thinking

President of Australian Skeptics, Richard Saunders, announced the winner, **Dr Robert Morrison** from Adelaide University Media Unit, for *Trust Me, I'm a Science Communicator* – a study examining how the mechanics and requirements of successful science communication differ

sharply from those of formal scientific research reports, and so bias science communication towards the sensational, speculative, hyperbolic and even fanciful. Dr Morrison is also President of the Royal Zoological Society of South Australia. His winning paper can be read elsewhere in this issue.

### Reed New Holland Eureka Science Book Prize

Another result of particular interest to Skeptics, where the Prize went to our favourite geologist, **Professor Ian Plimer**, for his new book *A Short History of Planet Earth*, published by ABC Books. From Big Bang to life on Earth took nature several billion years, yet Ian covered the ground in just 250 pages. After the announcement the editor of this journal was startled to find himself being enfolded in an affectionate embrace by the prize-winning Prof. Bemused, he had to be reminded that it had been him who had nominated *A Short History* for the prize.

### The University of New South Wales Eureka Prize for Scientific Research

**Dr Elizabeth Harry**, a University of Sydney microbiologist, who has discovered a key secret of the reproductive success of bacteria. Her fundamental findings may well lead to new drugs as well as tools to detect lethal bio-attacks.

## Eureka Winners

### Education, Science and Training Eureka Prize for the Promotion of Science

Working through the Commission for the Future, the science academies, Vichealth, and many other bodies, **Professor Ian Lowe** has made a remarkable contribution to science communication in Australia.

### Education, Science and Training Michael Daley Eureka Prize for Science Journalism

**Dr Norman Swan** and **Ms Katrina Bolton** won for their two reports on ABC Radio of allegations of scientific fraud, financial misconduct, workplace bullying and institutional cover-up at the University of New South Wales.

### The Sherman Eureka Prize for Environmental Research

Won by University of Newcastle chemical engineers, **Eric Kennedy** and **Bogdan Dlugogorski**, inventors of a technique for turning ozone depleting halons into ozone friendly and valuable chemicals.

### The Royal Botanic Gardens Eureka Prize for Biodiversity Research

**Dr Bob Pressey** assists in resolving conservation disputes around the world. His key negotiating tools are his computer and his award winning conservation software.

### Adam Spencer/University of Sydney Eureka Schools Prize for Lateral Thinking

Year 12 students, **Peter Clarke** and **Sandan Amardoru** from Mount Waverley Secondary College, Melbourne, won the inaugural Prize for their action plan to overcome the problems facing Australia through the community's lack of commitment to research and development.

### University of Sydney Faculty of Science Eureka Schools Prize for Biological Sciences

Frogs are disappearing around the world. **Ling San Lau**, a year 11 student from Rosny College in Tasmania wanted to know why. Her investigation won her the Prize for the second year in succession.



*Richard Saunders presenting the Prize to Dr Rob Morrison*

### The Australian Computer Society Eureka Prize for ICT Innovation Application

Won by ACT company **Seeing Machines**, whose *faceLAB* technology can scan the faces of drivers and detect signs of them falling asleep.

### Australian Catholic University Eureka Prize for Research in Ethics

The inaugural winner, University of Melbourne philosopher **Dr Jeremy Moss**, claims the Federal Government's unemployment policy is "punitive" and sets Australia in the "wrong direction".

### Institution of Engineers Australia Eureka Prize for Engineering Innovation

**Professor Robert Amin** from Curtin University turns the gas industry on its head with the LNG Microcell, a cheap, efficient way to quickly convert natural gas into liquid natural gas.

### Allen Strom Eureka Prize for Environmental Education Program

The world's teachers are key agents for bringing about sustainable change. **Griffith University**, working with UNESCO have created a comprehensive teacher education program.

### Australian Museum Eureka Prize for Industry

The **Eco Manufacturing Centre of Fuji Xerox** has developed practical ways of turning trashed office machines into "good as new, if not better than new" components. Their win is acknowledged for all time through the naming of a new species through the Australian Museum's Immortals Program.

*Ecomanufactua*, a newly discovered species of fresh water crustacean, was found in warm artesian springs in southwest Queensland and is a survivor of an ancient group that once inhabited the continent of Gondwana 238 million years ago (or last Friday if you are a creationist).

### Macquarie University Eureka Schools Prize for Earth, Environmental and Planetary Sciences

At age 12, **Matilde-Jane Oke** is the youngest ever winner of a Eureka Prize, for her study of the effect of dust on eucalypt trees.

### Environment Australia Peter Hunt Eureka Prize for Environmental Journalism

The **Wimmera Mail-Times** won for its "North to Nowhere" series which galvanised a community to protect the Wimmera River.

### Institution of Engineers Australia Eureka Prize for Engineering Journalism

**Peter Lewis** won for a selection of ABC TV *Landline* stories exploring the role of positive engineering solutions to challenges facing Australian agribusiness.

### Pfizer Eureka Prize for Health and Medical Research Journalism

**The Age "Gene Discovery"** team, for a comprehensive series of news stories, features, and editorials exploring the impact of gene technology on our lives.

**Complete information on each prize winner is available at the Australian Museum's website at [www.amonline.net.au/eureka](http://www.amonline.net.au/eureka)**



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## Selection of Sober Skeptics Seen at the Eureka's



*Peter Rodgers astonishes Tina Case, Steve Roberts, Helen Vnuk and Leigh Dayton with his prestidigitational skills.*



*A grateful Ian Plimer thanks Santa Williams for his Prize.*



*Either Trevor Case, Martin Hadley, Tina Case and Peter Bowditch celebrating, or the cast of the remake of The Marx Brothers Go West.*



*Colin Keay tells Helen Vnuk how tough his dinner was, using a bent fork as evidence.*



*Paul Willis is paid so much by the ABC that he can afford to employ a personal nail-biter when he feels nervous.*



*Steve Roberts tells Helen Vnuk his funniest joke.*

# Trust Me!

## I'm a Science Communicator!

### The Skeptics Eureka Prize winning paper



*Dr Rob Morrison from The Adelaide University Media Unit, is the winner of the 2002 Australian Skeptics Eureka Prize for Critical Thinking*

Like a Hollywood scientist's bubbling concoction, National Science Week has overflowed its confines. The week now lasts almost a month; there is too much science going on to spruik it in one week.

I say 'spruik' intentionally. Science Week promotes science, especially research, but many science graduates are looking for something else. Like law graduates who never practise law, some science graduates don't want to be researchers but are nonetheless fascinated by science, and hope to make a profession out of reading and writing about it.

They are science communicators. The term has gained more recognition since the national association formed seven years ago, but it still puzzles people. Science communicators can be science teachers or journalists. Some write books, make broadcasts or work in organisations that need people who can make difficult science material accessible to the public. Science communicators share a conviction that science, its potential, methods; even its hazards, should be better understood by a wider audience.

It couldn't have happened at a better time. On one hand, we are

bedevilled by pseudoscience and new age nonsense at times so outlandish that it would have embarrassed illiterate peasants in the middle ages. Healing crystals, numerology, creation science and more all clamour for respectability by donning the trappings and name of science while spurning its rigorous methods of delusion-testing.

On the other hand, real scientific developments are occurring so fast that they outstrip the speed with which society can respond. Stem cell cultures, genetic engineering, internet communication, cloning and more all highlight science's extraordinary progress and, at the same time, society's ponderous inability to cope with the ethical and legal consequences of it all. Science communicators try to make sense of all of this, and they have emerged at the right time to play an important role in the transformation of our universities.

#### Resources and communicators

Universities were once adequately funded to allow a reasonable level of research in all areas. Increasingly they must find their own money from fee-paying students, corporate

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links and patenting the products of academic research.

This works well if you research something marketable. Some large fortunes will shortly be made in university biotechnology departments, but if your research involves classifying rare seaweeds, or the ecology of uncharismatic snails, you may have trouble winning scarce money for it, no matter how good your science.

The race, you see, is going to the saleable, and as the science emphasis in universities shifts to entrepreneurial activity, it's not scholarship alone that counts but corporate links and business savvy. Some science is now unfashionable; it has little place in the corporate world.

Reallocating university resources to potentially lucrative science activities is understandable but regrettable, as it sends the message that the science that really matters is the science that pays, but it *has* created openings for science communicators. To attract corporate dollars, your university must be recognised as a research high-flier, and promoting what researchers do is just the job for science communicators.

A growing number of universities and other bodies like CRCs, CSIRO and so on have them now. Their job is to put out the good science news to the media, and link it to their organisation's name, so it might help here to talk a little about how science news *is* put out, for that, too, is changing.

### Making news

Traditionally, a publicist writes a media release and sends it by fax to newsrooms, radio shows, freelance journalists and so forth.

The newsroom's chief of staff examines the incoming faxes and distributes those of interest to the waiting reporters. The radio producer makes some quick judgements and follows up those stories that promise good interviews. The rest of the faxes go no further. One day's faxes may contain hundreds of stories, but only a few will be used.

The stories that succeed may do so because they describe a really

significant advance in some scientific field, but those are uncommon. Often they succeed because they *appear* to be significant. More of that later.

Many, perhaps most, newsrooms still work like this. It is effective when staff journalists are on hand to be given daily tasks, but some newsrooms also use freelancers, and some freelancers are not linked to any particular news outlet. There the picture changes.

If you are a freelancer, the faxed stories may not be quite your thing. You don't want the story that everybody else has, but something of your own. A scoop would be nice, but at least a strong story which no other bulletin is likely to run before you.

So you research your own stories, and there the internet and world-wide web are invaluable. Some excellent websites simply receive and post science media releases. Science reporters access them easily and find unlimited stories packaged and ready to go under categories like science, technology, medicine or business.

But these websites are equally valuable if you are a science communicator trying to get your story *out*. It is no longer at the mercy of a few newsroom chiefs of staff; it is posted for all the world to see and for any freelance reporter to use. You can increase its chances by accompanying it with electronic photos for journalists to download.

In this way, you may find your story and photos printed in an American Journal with a circulation of 20,000 whose existence you never suspected, or translated for inclusion in Hebrew websites. If you are lucky, it will feature on the ABC's respected science news site, *The Lab*. If you are unlucky, it will appear word for word under some other journalist's name, but that is your job, to get your university news out there.

### Playing the angles

But there are now more science communicators writing these stories, and while the number being used by the media is also growing, it is not in proportion to the number being pro-

duced. Which then survive? Those considered the *strongest* stories; but that often means those with the *strongest angle*. That angle could be seasonal, human interest, or attached to hard news, but five angles apply particularly to science stories. Let's take them one by one.

One angle involves the release of a report, a study's findings, a publication in a prestigious journal or similar. If the subject matter is considered interesting enough, it is usually reported in an uncomplicated fashion.

But the angle may be one of *controversy*; especially a disagreement between specialists. Such a story might pit genetic engineers against the ethicists who condemn what they do.

Another involves the *quirky* or *unusual*. Scientists can be dismayed to find their work handled this way. Having described their research in wetland ecology, they may emerge as wild, muddy, driven people, hair whipping in the fierce wind as they chase esoteric aquatic prey. This angle helps keep alive the stereotype of the eccentric scientist.

Then there is the *Guinness Book Of Records* angle. The biggest, most expensive, longest.... any superlative will do. A dinosaur bone is especially newsworthy if it comes from the biggest dinosaur ever to have lived.

And while most research involves *discovery*, many science stories get an undeserved run through that angle alone. The word 'breakthrough' is the cliché of the science report.

### Speculation

You can see where this is going. In a crowded news market, a controversial story about some quirky bloke discovering something that breaks all records has got to be a winner, but it may not be the most *important* science story around, and I fear that it is itself being overtaken by science that hasn't even taken place.

In the past, a science journalist wrote about work that had been done; a discovery that had been made. These days, stories often feature research that *may* lead to an

important advance, and the hypothetical promise of this advance provides the angle, makes the story work, and can occupy a large proportion of it.

But the great event hasn't yet happened, and may never do so. Remember the Millennium Bug? Cloning the thylacine? Even more hyperbolic is the story announcing a large grant to *begin* research that *may lead to a great advance of conjectural value*.

### Natural selection in news

In other words, Darwinian processes of natural selection are now at play in the science media. To compound that metaphor, a story survives if it is printed or aired, it reproduces if it is picked up and reported elsewhere. With an overpopulation of stories, few survive, let alone reproduce. Only those considered the fittest are selected for and find their way into print and broadcast.

They include quirky, controversial and extreme stories but, increasingly, *speculative* stories that subtly exploit where a discovery *may lead one unspecified day, if things turn out as hoped*. We are advancing hypotheses but calling them discoveries.

Our university monitors how often our media releases are printed or aired. Some top performers among my own include the possibility that stem cell technology *might* cure Alzheimer's (but which still awaits even trials), solar storms that *could* knock out Australia's communication systems (they didn't), brain research that *may* one day alleviate stroke (at least 10 years away), and a superior detector of gravitational waves (although the nature and even exist-

ence of such waves are *still* matters of controversy).

There is nothing technically wrong with this. The scientists and their research are good, the stories legitimate, but I fear the *balance* is astray. We are drifting from honest records of solid achievement towards exciting but speculative appraisals of where preliminary research, or even more, grants to undertake it, might one day lead.

We vitalise our stories by *means* that are fast becoming their *ends*, and what readers take from them is not so much the science in them but conjectural inferences of what it may



Rob Morrison flanked by Skeptics Barry Williams and Richard Saunders

become. Science reporting is starting to resemble science fiction.

SETI is a good example. SETI is the search for extraterrestrial intelligence. This, to me, highly dubious exercise attracts much more funding than it deserves and runs in the media, year after year, on excited speculation about whether others like us share our Universe and what they may be trying to tell us. Star Trek with credentials!

### What may be

To test this perception of mine, I punched the words 'stem cell' into the search engine of Eurekalert, perhaps the most influential science release website in the world. It

turned up 243 stories containing those words. The engine can rank them according to several factors. I chose date first, and read the ten *most recent* stories.

Only three of them avoided the speculative angle, dealing respectively with anatomy, ethical issues and why cloned cells die. The other seven, while describing good research, were newsworthy because of their speculative angle of where that research might one day lead.

They claimed that there 'may now be the option of donor cell treatment,' it 'may open a new door,' that stem cells 'might one day mend damaged hearts,' 'cure urinary incontinence,' 'treat a variety of diseases' or 'theoretically repair any organ.' It's possibly all true, but it will be a while before it is shown to be so; in the meantime, these science stories ride to an uncomfortable extent upon their conjectural angles.

That is not just a value judgement on my part. Search engines can tell you the degree of relevance of what they find, ex-

pressed as a percentage. The average relevance of the seven speculative stories was 80%. By contrast, the purely factual stories rated 63%.

80% against 63%? It's a telling difference if you want a winning edge that gets your story to air. The clear lesson from it is to use a strong speculative angle of the promise of things to come; with the underlying science a lot further down in the text.

The search engine can also rank stories according to this perceived relevance. I searched for the ten *most relevant* stem cell stories, which ranged from 88% to 85%. Again, only three lacked the speculative angle, announcing a call for pub-



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lic comment, a Congressional briefing and a finding that stem cell injections helped Lupus sufferers.

The other seven stories, in varying degrees, used the speculative angle of where stem cells *might* one day cure currently incurable conditions, predicting treatments for spinal cord injury, Alzheimer's disease, strokes, Lou Gehrig's disease, diabetes, immune disorders, Parkinson's disease, cancers, heart failure, spinal paralysis, multiple sclerosis and other therapeutic applications. One story cautioned that this experimental procedure 'may work in humans, but there is still a long way to go.'

There certainly is. I'd be the last to claim that this small sample is statistically significant, but it does have the uncomfortable ring of truth to me. I know how the game is played. I play it that way myself, and by doing so I can get results.

But what's the problem? News is

really entertainment, so surely anything goes.... We're just doing our jobs?... There is still good science being reported.....

These are all reasonable excuses or, if you like, legitimate claims. But surely, in the developing field of science communication, we may not want to see it continue this way. If this is how the world's most consulted and most respected science news website evaluates its top stories, what comes next?

### What's to be done?

Just as universities are being edged towards research with a commercial pay-off, science communicators are being eased into extrapolating from scientific findings into speculation, hyperbole and even fantasy. There *is* good science in these stories, but strip the hyperbole away, and much of the science is slighter than that behind the classification of seaweeds

or ecology of snails. Add the hyperbole, and stem cells will beat algae and molluscs to news broadcasts every time.

Perhaps, as specialist communicators, we need a certain code of practice. Maybe we should better separate the science in our reports from conjecture about its significance. Perhaps we should more often join that lone reporter in cautioning, when we predict the future benefits of today's research, that "we still have a long way to go."

And, while we reassure the public that we are there to help them decipher the sometimes complex but always exciting world of science, we might remind them that science is supposed to encourage healthy scepticism about dogma, and that reports from science communicators, just as much as the claims of the scientists they feature, should be treated with a healthy dose of that.



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## Poesy

# Bachelor of Seance

*You're a Bachelor of Seance, so I guess that means you know,  
how to constantly keep in touch, with those who've had to go,  
and how to summon up their spirits, if they're slightly willing,  
and speak to the dead, why that really is quite thrilling.*

*Does this gift which you have, mean you could talk to pets,  
and do you do it via the ether, or through the media of vets,  
could you get in contact, say, with my dear departed cat,  
or having been once run over, is that the end of that?*

*And what about my dog, do you think you'd hear him bark,  
from that big doggy playground, the dead dog departed park?  
Having made a connection, could I be absolutely sure,  
that the dog you were communing, was the pet I'm pining for?*

*I'm worried about the chance, of the wrong contact being made,  
that you might get a canine, with which I never played,  
but someone else's pet, which wouldn't answer to my call,  
or, perish the thought, you'd get no dead dog's soul at all.*

*No, I might just have to wait, until I join my passed on pets,  
it seems you might be trying, to lay off my psychic bets,  
and as for my parents, well, although you have that ticket,  
I think the school was fooling, so you know where you can stick it.*

**Poet. Jim Wilshire lives in Albury**

# A Case of Science and Justice

**A disturbing story that tells  
how science belatedly  
ensured that justice  
was done**



*Bret Christian is a journalist and publisher of the Post group of suburban newspapers in Perth and a subscriber to the Skeptic for around 20 years. After socialising with some convicted murderers he decided to pursue a life of crime in his spare time.*

A prospect we all regard with horror is that an innocent person might go to jail, or worse, be executed for a crime he or she did not commit. There have been some celebrated overseas cases, most notably the post-execution exoneration of Timothy Evans, a case that played a large part in the repeal of capital punishment in England. In 1950, Evans was convicted of murdering his wife and child in London and was hanged. Some years later the notorious serial killer, Reginald Halliday Christie, who had been convicted of the murder of his wife and five other women at 10 Rillington Place, London, confessed that he had also murdered Evans' wife. We now find, with rapid advances in the sciences surrounding DNA, that this nightmare is more common than anyone supposed, at least in the United States. On April 8, 2002, Ray Krone, who was convicted and sentenced to death in 1992, was the 100th Death Row DNA exoneration in the USA. An analysis of the first

70 exonerations shows how the inexact legal system can be brought to heel by an exact science. Elements in the trials of the first 70 Death Row residents to be freed show that their trials were shot through with false witness testimony (17), incompetent defence (23), false confessions (15), prosecutorial misconduct (34), plus a frightening 61 cases of mistaken identity.

## **The Button case**

The Western Australian case of John Button, who faced the gallows when he was charged with the wilful murder of his girlfriend Rosemary Anderson in 1963, is one Australian case that demonstrates that our legal system, which prides itself on fixing its own mistakes, is not immune.

It is true that the system finally released John Button from his inner prison, but it took almost 40 years for the science to catch up with the law, or vice versa. John Button turned 19 the day his particular

nightmare began. He was 58 when he walked into the central police station in Perth and finally witnessed the destruction of his criminal record.

His 19th birthday dinner at his parents' Perth suburban home had been pleasant, until he and Rosemary, aged 17, had a tiff. She flounced out and started to walk home. John jumped into his car, a 1962 French-designed Simca Aronde, and followed her, trying to persuade her to get in. But she was determined to walk. When she disappeared under a train-track subway, he stopped the car, lit a cigarette and waited. He knew that on the other side was a deserted industrial strip. The darkness and the loneliness might make her change her mind. But when he drove through four minutes later, he spotted her lying in the sand several metres from the road, fatally injured. Thinking there was a crazed hit and run driver at large, he carried the bleeding girl to his car and rushed her to a doctor's surgery.

The doctor called an ambulance and the police. When the cops arrived they noticed damage to the left front corner of Mr Button's car. He told them he had had a minor accident when he ran into the back of a Ford Prefect car three weeks before and had not had the damage fixed. The police turned up a report of this accident. But it looked suspicious. He was the boyfriend, there had been an argument, he was on the scene, there was damage to the car and there was blood on the car which, it transpired, was transferred from the girl and his own bloodstained hands as they brushed past it. He also had a bad stutter, which investigating police took as nervousness at the questions he was being asked.

After about five hours in police custody and learning that his girlfriend had died in hospital, Mr Button signed a confession that had been typed out by a detective. The jury at his trial convicted him



*A police photo of John Button's car taken after he was charged.*

of manslaughter, and he was sentenced to 10 years hard labour. Had he been convicted of wilful murder, as charged, he could have hanged.

#### **Cooke's confession**

There his case would have rested had it not been for the arrest four months later of Eric Edgar Cooke, a 32 year old father of seven who had confessed to eight murders, including the killing of Rosemary Anderson.

He provided great detail of how he had spotted her just after she walked under the subway, waited for the traffic to clear then lined her up



*John Button's car fitted against the Ford Prefect he crashed into weeks before the fatal crash.*

with a car he had stolen that night, a 1962 Holden. He described how she flew over the bonnet, over the roof and disappeared. He had then driven the car to a park 3km away and crashed in into a tree to disguise the damage. The Holden's owner was contacted and he and police records confirmed that his car was found crashed into a tree in Kings Park the next morning, just as Mr Cooke described. As would be expected, John Button appealed on the basis of this confession.

Cooke gave evidence at the appeal, but the judges, already

sickened by the details of his other crimes, refused to believe anything he said. They said he was inventing the story to delay the death sentence he had been handed for other murders. He was hanged in October 1964. John Button was released from jail after five years, but never gave up trying to clear his name.

In 1998 I agreed to publish the superb biography of Eric Cooke for author Estelle Blackburn. The book purported to include new evidence from two witnesses who had come forward during Ms Blackburn's research. Their stories cast doubt on the conviction of John Button. The book's publication received wide publicity and the new evidence led to the WA Attorney General agreeing to re-open Mr Button's case. Public expectations were raised that the new evidence would exonerate Mr Button.

The many people affected by the death of Ms Anderson and Mr Button's conviction were traumatised all over again. Following publication of the book, I re-interviewed both new witnesses. It quickly became apparent to me that they had nothing to add to the available evidence, and so it proved in court two years later. I felt strongly that in the interests of justice and the peace of mind of the many people affected, something now had to be done to resolve the question of Mr Button's guilt, publicly and once and for

all. I went looking for the equivalent of DNA evidence.

### Search for an expert

Court files included good police photographs of Mr Button's car, alleged to have been the murder weapon.

A search for the world's leading expert on pedestrian crashes found William "Rusty" Haight in the United States. He is a former police officer with engineering training and is well qualified in both the theory and practice of pedestrian crash reconstruction. He has driven in more than 700 staged crashes, analysed the results and testified in scores of court hearings.

Now with a private consultancy based in San Diego, he was then employed by the engineering department of a Texan university. A large amount of his time was spent instructing police officers in traffic crash investigation.

After Mr Haight agreed to review the available evidence, he said that no firm conclusion could be reached about which car killed the girl. The problem was that no cars of the vintage of those said to be involved had ever been crash-tested in a car v pedestrian situation.

I then arranged for Mr Haight to travel to Western Australia to carry out such tests. He brought with him a biomedical human-form dummy, that behaves exactly as a human body in a pedestrian crash situation. I had purchased three 1962 Simca sedans and a 1962 Holden sedan. The tests were designed to show whether the prior accident



*A sequence of four photos of a crash test with one of the Simcas. On this occasion the dummy was placed to be hit with the right side of the car to show that if it is hit right, it goes right, and if it is hit left, it goes left.*

*The mask Mr Haight is wearing is to protect him from shattered glass in case the windscreen smashes.*

damage to Mr Button's car could have masked further damage caused by an impact with Ms Anderson.

Mr Haight also wanted to measure the displacement of the dummy to one side of the car. Ms Anderson's body was found well off the road. Different vehicle profiles cause different displacement distances. The Holden has a square-fronted look while the Simcas have rounded lines.

### Crash investigation

A major problem with Cooke's evidence at John Button's original appeal was that the car he stole was fitted with a steel sun visor. The appeal judges simply did not believe that a body could have been flung over the top of the car and displaced well to the left-hand side without being caught by the visor or ripping it off. They ridiculed Cooke as he stuck firmly to his story in the witness box.

At the test venue, video equipment was installed to record the impacts from various angles for court purposes, including cameras inside the cars. Still photos were also taken before, during and after the tests.

The dummy was stood on the bitumen road and held upright with a breakable knot from a "gallows" contraption that we built. This knot presented no resistance when the dummy was struck by a car.

The three Simcas were crash-tested at speeds of 27, 31 and 37mph (43, 50, 59km/h).

The amount of damage to each car varied with the speed, but its position on the car was consistent. It was stark and obvious in each case. The leading edges of

the cars sustained some damage, and there were pronounced dents to the rear of the bonnets caused by the dummy's head striking the metal.

Mr Haight explained that the physics is quite simple. The centre of gravity of an adult is above the top of the striking edge of the bonnet. On impact, the body begins to rotate around the axis of the leading edge, causing the head to impact towards the rear of the bonnet, depending on the length of the bonnet and the design of the car. At highway speeds, this head strike often occurs on the windscreen.

The body continues to cartwheel. Because of the shape of the front of the Simca, something like an upturned boat, the dummy was flung to one side before contacting the windscreen and ended up on the road within a metre of the side of the vehicle.

The three test Simcas sustained none of the damage shown in the police photos of Mr Button's car. And Mr Button's car had none of the massive bonnet damage suffered by the test cars.

After the three Simca tests, Mr Haight was able to declare immediately that Mr Button's Simca *could not have struck Ms Anderson with sufficient force to kill her, or even seriously injure her.*

Mr Haight concluded that the damage that so aroused the suspicions of the original investigating police, was all caused by the earlier collision between the Simca and the Ford Prefect.

Mr Haight's Simca tests also failed to displace the "body" more than about one metre to the side of the car - nothing like the two to three metres described by witnesses at the time.

There remained only the test of the Holden fitted with a visor to check the veracity of Cooke's statement that he had driven the car at the girl at 35-40 mph and she had been flung over the top of the car.



*The third Simca showing bonnet damage.*



*Rusty Haight with another of the Simcas, showing the massive bonnet damage.*



*The dummy and John Button.*

No photographs are available of the damaged Holden Cooke stole that night, but there is a detailed account from the panel shop that repaired it for the insurance company.

Mr Haight hit the dummy with the Holden at 35mph (56km/h) just to the left of centre of the bonnet. To everyone's surprise except Mr Haight's, the dummy behaved quite differently from when it was hit by the Simcas.

The Holden sustained quite severe damage to the leading edge of its bonnet and some head damage to the rear of the bonnet. The dummy then cartwheeled towards the roof of the car. It struck the visor above the left hand side of the windscreen.

Mr Haight said in his evidence that the visor did play a role in the body motion, but not the role suggested by the Crown at Mr Button's original appeal in 1964. The visor flexed and distorted, but popped back into its original shape without even cracking the paint. There was no discernable damage to the visor.

But contact with the visor caused the dummy to deflect laterally to the left of the car, a distance of 6.5 feet (2 metres), well within the range described by the witnesses who came upon the original crash in 1963.

The forward or down-range projection of the dummy by the Holden was also markedly different from that of the Simcas, and indeed most other cars Mr Haight has tested.

Mr Haight was able to declare in court that the death of Rosemary Anderson could have occurred exactly as Cooke had described it, but that it was not possible for Mr Button's car to have killed her.

### **Court finding**

Strict legal rules govern the acceptance of fresh evidence by appeal courts. They will not allow evidence that was available but not used at

the time of the original trial. In the same way that modern DNA evidence is now admissible to re-open old cases, the crash tests fitted the "fresh evidence" criteria because the science of surrogate crash reconstruction had not developed in 1963-64.

The three Court of Criminal Appeal judges accepted his evidence, emphasised the importance of the sun-visor evidence and quashed Mr Button's conviction. The judges said Mr Haight's evidence was compelling and convincing. It was the longest time lapse between conviction and exoneration in Australia's legal history.

### Notes

1: After the Perth crash tests Mr Haight was invited to take the dummy to Sydney for crash testing on vehicles fitted with roof bars. Mr Haight refused. One hit with a kangaroo bar would completely dismember his \$2,500 dummy, he said. Keep that in mind next time you cross the road.



*The dummy has just cleared the sun-visor and is being displaced to the left of the Holden.*



*The damaged Holden showing the distance the dummy landed to the left of the car.*

2: Car manufacturers carry out crash tests to assess the safety of occupants. However none carry out pedestrian crash tests. Mr Haight believes they fear lawsuits if they knowingly market vehicles with front end shapes that may cause untoward pedestrian damage.

3: Another murder appeal is now before the West Australian courts in which Mr Haight's crash test evidence could be critical. It is the case of Darryl Beamish, a deaf mute who was in jail for a 1959 axe murder for which Eric Cooke also confessed. At Mr Beamish's original unsuccessful appeal, the judges cross-referenced Cooke's evidence with that of the Button appeal, again declaring him a liar. Referring back to the Button case, the then Chief Justice wrote, "Cooke claims to have had little damage to the car he was driving". "What damage there was resembles in some measure that which was found on Button's car. The mathematical odds against such a coincidence beggar the imagination."

Mr Beamish was sentenced to hang. His sentence was commuted and he served 15 years.



### The story behind the story

In July, ABC TV broadcast, as part of its *Australian Story* series, a two-part programme on the case of a WA man, John Button, who had served a prison sentence for manslaughter and who had been cleared of the charges almost 40 years later.

On the face of it this story held nothing of particular interest to the Skeptics, until it became apparent that the key to the case for Mr Button's innocence rested on some empirical scientific experiments that showed very convincingly that the victim *could not* have been killed in the way claimed by the prosecution.

One participant very much involved in the campaign to have the conviction overturned was Bret Christian, the publisher/editor of the Post group of Perth suburban newspapers and a long-time *Skeptic*

subscriber. We contacted Bret and his story appears here.

Episode 2 of *Australian Story* followed a panel of all those concerned in the case engaging in a session of "restorative justice". What stood out in the interplay between the participants was the way the very elderly parents of the victim gradually realised that the man they had blamed for 40 years for their daughter's death was, in truth, an innocent man; extraordinarily moving TV viewing.

This case raises some disturbing questions about how scientific evidence is (or should be) treated in courts. Most of us probably regard our legal system as reasonably fair, albeit with some blemishes where innocent people have been wrongly convicted. Perhaps we have been too sanguine in our judgement. The technology used in these experiments was not available in the 1960s, and per-

haps the original conviction could be justified, but the fact remains that an innocent man was convicted of a crime he did not commit. Furthermore the use of DNA evidence now shows that a substantial number of people in the USA have been wrongly convicted of serious crimes.

Somehow the law must recognise the advances science has made in the forensic field, and the way scientific evidence is treated should be reviewed. There are good arguments for and against the adversarial system of justice we use, but the law needs to understand that, in the scientific area at least, the truth does not necessarily reside with the scientist in the better suit, or the more glib exposition, but with the evidence itself. Incidentally, that should also be the case with the law itself, but we doubt if anyone believes that.

**BW**

# How to Identify Good Science

or... clues warning you of bad science or pseudoscience

## An excellent guide to how science works

Mention dowsing for water, diagnosing disease with iridology or alien visitors arriving in UFOs and readers of *the Skeptic* are immediately interested. But talk about the contribution of nerves in regulating the ovary's secretion of the hormone progesterone and their skeptical interest level plummets.

Do we skeptics just pick on believers in astrology? Are we inherently biased against psychics? Has someone at 'Skeptics Central' drawn up a 'hit list' of topics for us to look out for?

I think readers of *the Skeptic* are interested in any claims based on poor (or absent) science, and that they do share an intuitive sense of a distinction between 'good' and 'bad' science. This article is my attempt to define the characteristics of good science.

### Consilience

We have more confidence in theories that mesh with other theories. This mutual agreement William Whewell named 'consilience' and Niels Bohr named 'correspondence'. It is because of consilience that established theories do not stand or fall alone.

It may be that chiropractic is a better treatment for colds, diabetes and hepatitis. But if Daniel Palmer's

chiropractic is true, if our diseases are really caused by subluxations compressing spinal nerves, a great deal of our understanding of anatomy, physiology, veterinary science, and medicine would have to be discarded (Jarvis, 1987). If our understanding of so much medically-applied biology needs to be re-written, so be it. But without consilience, experience in science has shown us that the odds of chiropractic being true are not good. Such a lack of consilience of theories is why so many alternative health modalities are initially treated skeptically.

### Replication

Have the results been replicated? The psychic's ability to identify cards, to predict random numbers, and to remote view scenes have all produced statistically significant results. But only in short numbers of trials, and never when repeated. And, more importantly, have never been repeated by other researchers (Gardner, 1991).

The thing about 'statistically significant' is that random numbers can be expected to produce a statistically significant pattern five times out of a hundred, because that is usually what 'statistically signifi-

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## Identifying Good Science

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cant' means – less likely than five in a hundred chances that the observed difference was produced by groups of numbers with no actual difference between them.

It's the same for the psychics. Repeat an experiment often enough and some trials, sure, will be statistically significant. But can you repeat the statistically significant results?

Results based on a single instance, like this example, or even a small number of observations, do not give us much confidence in any theories derived. If the same observations were obtained from a hundred trials, or a thousand trials, we would have far more confidence in them. Replication is a key part of every real experiment.

### Restricted In Time Or Place

Dowsers claim to be able to find water, and when paid a nominal \$100 or so to cover expenses, certainly can find water in my back paddock. I've no doubt about it. But in a controlled situation, dowsers repeatedly are unable to identify water on the surface (Sceats, 2002), let alone 20 metres below ground.

So dowsing certainly works, in paddocks without skeptics around to test their predictions. But not in controlled trials. Never in controlled trials. Even when they agree that the procedure and environment of the trial is satisfactory beforehand. Never has dowsing been demonstrated if the trial is controlled.

It is because dowsing ability is apparently limited to certain times and places that we have doubts about its validity.

### Controls

One of the most difficult parts of science is devising the most appropriate controls.

Including a control group to compare the treatment group with is particularly important in medicine where the response of people to their diseases, and to drugs and other therapies, is so variable. The use of dummy medicines with the active ingredient missing for the control

group in medical trials is called a placebo (Brown, 1998; Zivin, 2000); the use of a dummy procedure (like the removal of the appendix) is called a 'sham'. (Hence the joke: forget the shampoo and give me the real stuff! – maybe it's only geeks and nerds that laugh at jokes like that.)

Acupuncture works. No doubt. Take a patient with pain, stick needles into their acupuncture points, and they will suffer less pain. But add a control group, say with the needles consistently inserted 1 cm to the left of the acupuncture point, and I bet that they will gain the same benefit, the same reduction in pain.

The ethical use of placebos and sham procedures as controls, in clinical trials to evaluate whether new drugs and procedures benefit the patients, is a great problem (Bok, 1974). Nevertheless you don't solve this problem by not having controls. Doing that would make your observations unreliable and worthless.

A drug or procedure that does what is claimed for it is described as efficacious. All prescribed drugs have had their efficacy demonstrated before they were approved. Most vitamins and herbal medicines are classed as food supplements, and are not required to have demonstrated any efficacy, and so may not have been evaluated against controls in a clinical trial.

### Homogeneity

Reliable results are more likely if the treatment and control groups are homogenous; if the animals, plants or humans are as alike as possible. This is why laboratory rats and mice have been so very useful in biological experiments – the various strains used are so inbred that each of the animals subjected to a treatment yield very similar results.

In human clinical trials, such as testing the effect of Vitamin C on colds, homogeneity is managed by matching each treatment subject with a control subject that is as similar as possible. This is one reason why in human clinical trials 'pro-

spective studies' where the treatment and control volunteers are matched and allocated to groups before the trial starts, and assessed as the trial progresses, gives the most reliable results. In 'retrospective studies' based on, say, mortality rates, and then tracking backwards to identify factors that may have contributed to differences, the variation between treatment and control groups is often not as good, and with more variation due to differences between the people's histories studied the data are often less reliable.

Homogeneity is one of the subtle differences between good-quality clinical trials, and those of lesser quality. Funnily enough, where clinical trials have shown that alternative health modalities have some real benefit to offer, these trials tend to be at the 'lesser quality' end of the spectrum. Being of lesser quality, maybe the statistically significant results obtained were really due to differences between the treatment and control groups?

This variation between individuals is very real, and quite natural. It is found in all populations of animals, plants and animals. Take a room full of medical students, and ask everyone to silently count the number of pulses in their wrist over sixty-second period. Having done this, now write their pulse rates on the board for all to see. As the students call out their numbers you will be impressed with the variety in the data. Try the same with the length of the last menstrual cycle for female students, or the number of hours since each last defecated. These are all regular activities, and they show variations between individuals. Compare this with biorhythms, where we all have exactly the same, identical feminine 23-day, male 28-day and intellectual 33-day cycles (Randi, 1982b). Never varying, never changing, exactly the same for everyone. Completely unlike every other cycle of activity measurable in humans, animals or plants (Wheeler, 1990).

You can almost here the cries of



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anguished sceptics calling out: “Too much homogeneity!”

### Objectivity

The results need to be produced objectively, unbiased by the researcher’s expectations.

It is in order to produce objective results that medical trials use placebos, so the volunteers do not know which treatment they are receiving (a ‘blind’ trial). If the medical staff administering the treatment and evaluating the outcomes also do not know which volunteers are receiving the active ingredient, and which the placebo, this is a ‘double blind’ trial.

The case of the French ‘N-rays’ is a remarkable example of seemingly reputable science of the consequences of losing your objectivity, very well described by Klotz, 1980; although the fairies at the bottom of the garden promoted by Arthur Conan Doyle must be the most famous example (Randi, 1982a).

It is the lack of objectivity that reduces our confidence in so many reports of how effective alternative medical treatments are. “I tried it, and I know it works.” How do you know? What did you measure? Maybe you would have felt good on that day anyway?

### Measurement

The measurement of a variable may require considerable knowledge and skill, and to be confident that the measurement is made correctly may require considerable experience in that area.

Basic concepts of measurement include;

- precision (how close repeated estimates are),
- accuracy (closeness to the correct result),
- minimum detectable dose (the smallest amount that can be measured that is different from zero),
- sensitivity (the ratio of the change in the measurement to the change in the dose, or the slope of the standard curve), and

- specificity (are you measuring what is claimed, unaffected by other similar chemicals?).

It is because of these subtle difficulties that results obtained by experienced researchers are valued more highly than those from novices. Such a contrast between experience and naivety is amply demonstrated by the creation scientists (Wheeler, 1987)

### Statistical analysis

Trials of dowsing (Sceats, 2002) and psychic abilities often produce large numbers of results. These will need to be summarised to be more comprehensible, most often as a mode (for groups) or mean and standard deviation (for continuous data). Then the treatment and control groups’ outcomes are compared, very commonly using a Student’s *t*-test or Analysis of Variance. (‘Student’ is the pseudonym adopted by the author of the *t*-test; not who is expected to use the *t*-test.)

Statistics is not for the faint-hearted. The correct choice of which analysis to use and how to apply it may be critical. Many researchers, like myself, would rely on professional advice from a statistician in analysing their research data, but would rely on their own knowledge and experience when evaluating the research of others.

A good example of inadequate statistics has been describe by Beale (2001) in the case of the claimed declining sperm numbers in men.

### Interpretation of results

Once the experiment has been conducted the results must be interpreted fairly. Mostly this happens, but not always. Subtle influences, particularly social biases, sometimes impinge.

The commonest misinterpretation of results is confusing the correlation of two variables with one variable thought to be causing the other. Since the late 1940s there has been a definite increase in the number of UFO sightings (Gardner, 1952). And in this same period the numbers of psychiatrists and therapists have

increased hugely. (We can assume that the supply of psychiatrists reflect the increasing demand for their services.) The obvious conclusion is that the presence of UFOs with their mind probes and abductions has generated a vastly increased demand for psychiatric services. It seems that the influence of UFOs and alien visitors has been grossly underestimated.

The last paragraph is absolute rubbish, huge confusions of erroneous cause and effect. Just because two variables are correlated it does not mean that one has caused the other.

- UFOs are not proof of alien visitors. UFOs are unidentified, remember.
- The supply of psychiatrists does not equal the demand for their services. Underemployed psychiatrists are quite likely to hold awareness classes, talk to community groups, and so on, increasing the demand for their services. So the greater the supply, the greater the demand.
- The increase in the number of UFO sightings has not been uniform. Indeed in recent years the decrease in UFO sightings in the UK has been so marked that a major British UFO society has closed for lack of interest.

A classic case of misinterpretation is the interpretation of the fact that men have larger brains than women. This was interpreted as proving that men are more intelligent than women. Then biologists appreciated that men have larger bodies than women, that a larger body needs a larger brain to run it, and that this factor can be allowed for in the data. With the effect of body size removed the data were re-analysed, showing that women have larger brains than men. This then was interpreted as proving that men and women were of equal intelligence (Gould, 1981 – one of my favourite books on the misuse of science).

### Parsimony

Interesting results often call for assumptions. Naturally such assumptions must be reasonable. Also, there should be as few as possible;

## Identifying Good Science

the general rule is to favour the theory requiring the fewest assumptions. This is 'parsimony', better known as Occam's Razor. (The 14<sup>th</sup> century William of Occam, or Ockam, deployed his 'razor' to his theological studies; it has since been successfully applied to philosophy and science.)

An example of the application of parsimony is the lack of confidence in the creationists' 6000-year history of the world because of the very many special circumstances, special assumptions, that need to be assumed to accommodate the great depth of fossil strata, the huge number of extinct species found as fossils, the numerous transitional types, the sequencing of living things in the fossil strata, and so on (Wheeler, 1987). Meanwhile Darwin's natural selection of inherited characteristics to produce new species requires comparatively few assumptions, and for this reason (and many other reasons) is held with very much more confidence.

### Peer review

Appreciating the appropriateness of the technical details of the experimental method, the choice of controls, and statistical analysis used, and other minutiae is best done by other researchers working in the same field. This is where peer review comes in. An editor of a journal receiving a research paper submitted for publication removes the first page containing the names and addresses of the authors, and sends the paper to two or three other researchers working in the same area. They write a detailed commentary on the paper – querying the choice of materials and methods, interpretation of the results, quotation of other sources, etc. The editor uses these peer reviews to decide whether to publish or not based on whether the information is original and useful, and whether the methods used to obtain it are sound. (Most papers accepted for publication are sent back for revision – clarifying some points, adding more technical infor-

mation, adding references to other useful information, etc.)

Because of this editorial process scientists have a great deal of confidence in papers published in peer-reviewed journals. Indeed, journals without a sound peer-review system in place have a very limited value. Most books are not peer-reviewed, and hence scientists treat books with more reserve.

Creation scientists in particular have been shown not to even submit their 'research' to peer-reviewed journals (Cole & Scott, 1982). It is the lack of publication in such valued sources that first flags their suspect nature to professional scientists.

### Ethics & Safety

Experiments in science also need to be evaluated for their ethics and safety, though such evaluations do not effect our confidence in any theories derived from such results. Nevertheless, I mention these aspects here, as science students should appreciate the ethical and safety bases of experimentation.

### Conclusion

These informal criteria in evaluating others' research are important in the progression of scientific knowledge, in deciding which theories are held with which degrees of confidence. (Please note – science can never **prove** a theory; research can only support or discredit a theory. The more a theory is supported, the more confidence we have in it being correct.)

The knowledge needed to fully critically analyse a theory is considerable. Recall that a practising scientist has probably completed a four-year bachelor's degree, a three-year doctoral degree, and three-years post-doctoral research experience before being accepted as a competent independent researcher. And these are very much only the minimum times. Nevertheless, many of us have a 'gut feeling', an intuitive sense, for what seems reliable and credible. And I suspect we all use selections of criteria such as these.

Have I made science sound as though only scientists should partici-

pate? This is certainly not my intention. There has been a long history of amateurs making very valuable contributions to science – and recently more than that. If science is important it must have an impact on our lives, it must impinge on non-scientists. Consequently it is important that we should all have a sense of which science is good, and which is bad.

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## Tripping (over)

# The Light Fantastic

Untoward excitement on the  
physics front exercises  
the baronet's  
cerebellum



*Sir Jim R Wallaby's is a name to be reckoned with wherever quantum mechanics gather to discuss their esoteric trade. The photograph is of his great grandfather.*

*There was movement at the lab bench  
For the word had passed around  
That the 'c' from Albert E had got away  
And had joined the wild inconstants;  
It was really quite profound,  
And all the cracks just had to have their  
say.*

**(Albert of the Overdrive, A B "Ukulele"  
Wallaby)**

### From the halls of high Olympus...

If we exercise our imaginations very, very hard we might all contrive to visualise the consternation that latterly perturbed the torpor of sundry hostelries and low dives wherein theoretical physicists, cosmologists (and others of like kidney) forgather to ruminate on their latest theories and impugn each other's parentage.

The cause? Information had emerged that a collaboration of such sages had undertaken certain observations, the outcome of which suggested that during some of the

elapsed time since the propagation of the Universe, something called a "fine constant" had not necessarily always been consistently constant. As far as I can discern, this fine constant results from multiplying together several other constants (coarse ones, perchance?), one of which is the velocity of light (**c**). Other constants of abiding interest to these doughty fellows include: the charge on the electron (excessive, if my electricity bill is any guide); Planck's constant (something to do with architecture or carpentry, I suspect); "the state is a tinderbox"; and, "cricket is a funny game". For reasons known only to the savants listed above, **c** seemed to be the most likely culprit for the inconstancy of the constitutionally constipated constant. (Don't ask me; until recently I had always thought that Fine Constant was the name of a rung-in racehorse.)

No doubt, as is the way with all such abstruse scientific controversies, these matters will be stoutly contended in the pertinent forums and, somewhere down the track, in

the fullness of time and at the end of the day, a clearer picture will emerge of where the truth, as it were, lies (all other things being equal). Or so I have been led to believe.

Meanwhile, while all this raucous disputation has been ricocheting around the hallowed halls of science, out in the mundane materiality inhabited by the likes of you and me, the news media (mediocre?) had got hold of the story and, as Eureka laureate, Rob Morrison, so eloquently proposes elsewhere in this issue, there is nothing that sells quite so well in the media as sensationalism. And, indeed, the veracity of his prophecy was very quickly demonstrated.

### Enter a quidnunc, shouting

Loudly did the airwaves and printed pages of the land resonate with the headline “Einstein Was Wrong!!!” (referring, of course, to that saintly man’s most celebrated opus, the so-called Scottish Equation, *viz*, E equals McTwo) as journalists and divers commentators—at-large strove to comprehend or proclaim (and occasionally both) the intricacies of this recondite scientific issue to *hoi polloi*.

Stock markets bolted, horses plummeted, strong women took to drink and stout fellows were seen weeping in the street, as the ramifications of this revolutionary postulate were grasped and digested.

Indeed, with such suspicious alacrity did the representative of the Fourth Estate embrace the notion, that it would seem not beyond the boundaries of conjecture to wonder if this hypothesis will not soon be assimilated into numerous commercial TV “lifestyle” programmes and at least one of the interminable cooking performances that continue to pol-



Creationist Light Speed Measurement Kit Mk II (Richard Saunders)

lute the radial emanations of “everyone’s” ABC.

### ... to the shores of cupidity

But truly this brouhaha would certainly have counted as nothing when juxtaposed with the euphoria that must surely have exercised the passions of those whose toil among the middens of obfuscation marks them out, indelibly, as the common-or-garden creation ‘scientist’ (*homo obscurantis*).

With what gladsome cries of “Praise the Lord” did these sole auditors and arbiters of God’s word greet this news? With the mind’s ear we can imagine the acacias on the ridges resonating to loud exhortations of “Hallelujah” (but certainly not of “Eureka”, a pagan inspired epithet). With what sanctimonious fervour must they have rushed to the crypt to examine their carefully preserved scrolls of the Setterfield Manifesto? (In a 1980s, one Setterfield produced a treatise on the speed of light and its relationship to “Sin”, of such surpassing idiocy that it had managed to fool even creationists for only a year or ten.) With what reverence must they

have dusted off the sacred text as they prepared to proclaim it to the world?

The cause of all the excitement? Had not an unwary cosmologist vouchsafed to a newspaper:

*It seems that the speed of light was going along quite rapidly, but about 6000 million years ago it hit a speed bump.*

What more proof could be needed to confirm the Creationist Creed – that the Universe was created, as it was in the beginning, is now, and ever shall be, for ever and ever (amen) just 6000 short years ago? Had not a scientist (one with real,

EARNED, degrees) publicly confirmed the veracity of that magic (nay, sacred) number – Six Thousand Years? “Hosanna!”

For hath it not been written (not least by my good self, on many occasions) that the representative of the species *homo obscurantis* is not well-attuned to the subtle nuance of scientific discourse, nor to such alien concepts as evidence, logic or reality; rather he seeks to grub in the mire for the misplaced punctuation; the misspelled word; the malleable quotation that, he avidly believes, will set all scientific knowledge at naught, thereby elevating his own variety of ur-theology to the status of the sole legitimate enunciation of The Truth.

Only the most curmudgeonly of pedants would interpolate here that the scientist concerned had said Six Thousand MILLION years ago. Of what odds are a mere few orders of magnitude to someone to whom the words that you’re liable to read in the Bible ARE necessarily so?



# This Little Piggy...

**Our intrepid correspondent tiptoes through the tulips to get to the bottom of a weird new fad**



*Karen Stollznow, who is doing postgraduate studies in linguistics at UNE, is also an investigator of New Age pseudo-therapies.*

The humble foot has featured in curious customs and anecdotes throughout our history. From the 10<sup>th</sup> Century Chinese women practised foot binding until the procedure was outlawed by the country's government in 1911. Jesus washed the feet of the apostles at the Last Supper prior to his crucifixion in a ritual called 'Pedilavium', subsequently practised by Popes and Roman Catholic Priests on Maundy Thursday during Lent. King James II was the last in a long line of English monarchs to perform an annual ceremony of washing the feet of paupers as an expression of humility, as their queens distributed alms amongst the poor (Maundy Money). Last year British archaeologists discovered the sophistication of ancient Egyptian medicine when a prosthetic big toe was discovered attached to the right foot of a 1000 BC mummy.

Aside from the fortnightly toe clipping ceremony and the occasional adorning of the toe with nail polish or a toe ring, most Australians are probably quite dismissive of their feet. However, there's an Australian woman out there, Ms Julie Collet,

who pays more heed to the heel and detail to the toenail than is necessary. Now, we all know that iridology relies on the condition of the eye for diagnosis and palmistry relies on interpretation of the appearance of the hand to 'reveal' one's past and future but did you know that there is a new pseudo-science to add to the New Age lexicon? 'Toestory', toe reading, teaches that the toes can reveal the personality, past and health of their owners and mirror the 'condition of the whole person'.

## **Sounding a bum note**

In a related aside of even stranger paranormal practices, UK psychic and spiritual healer Sue Rowlands gained some notoriety in 'reading' something a little more controversial than eyes, hands or even feet. Without coining a name for her devised quackery, Rowlands reads naked bottoms! The legitimacy of her art is further compounded by the fact that she only reads men's bottoms! Rowlands claims she can interpret a man's fidelity according to the shape and hirsuteness of a bottom. Quoth Rowlands:

## This Little Piggy

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*A hairy bum signifies pulling the wool over the eyes – it means they will cheat and can't be trusted. Deep ridges are a sign they don't open up, but a clear bum with no marks or blemishes is a good sign – what you see is what you get.*

In the obvious interests of empirical testing, Rowlands seeks volunteers to further her 'research'. Her web site, sue-rowlands-centre.org.uk, is ostensibly an advertisement for her 'health retreat', New Age courses and workshops.

At the time of writing this article I came across a Channel 10 news segment about a blind German psychic, Ulf Buck, who recently traded palmistry for reading bottoms. This followed on from an *Odd Spot* mention in the *Melbourne Age*, 17/7/02 where the clairvoyant stated that people's backsides have lines like those on the palm of the hand, but have "a much stronger power of expression".

NSW Skeptics Vice President, Peter Bowditch's website, www.ratbags.com, features a related mention in an update for April 2002. 'Rumpology', a self-explanatory pseudo-science, is practised by Jacqueline Stallone, US psychic although more famously known as the mother of actor Sylvester Stallone. Stallone also calls the reading a 'fanny gram'. Her website, www.stallonesstarpower.com/reportsDocs/rumpology, proclaims:

*The lines, crevices, and folds of your fanny can, to the trained eye, reveal your personality, fate, and future in luck and love.*

By sending a print of your backside, initials and date of birth (without forgetting \$100) one can:

*...receive a personalized report of 30 pages or more covering your journey through the coming year based on the pattern of the lines, folds, and crevices of your fanny-gram. We'll return your fanny-gram, too, which you may want to frame as a family keepsake when the fates smile on you.*

### Searching for enlightenment

Meanwhile, the biannual Manly Warringah Community College brochure had found its way into my post office box. The Autumn/Winter edition advertises 'Hands on Learning: Hundreds of Courses for Business, Work and Leisure'. The college offers a diverse range of courses from the practical to hobby classes. Within the category of 'Leisure' a selection of 'Body, Mind and Soul' courses were offered. Nestled amongst courses such as 'Reiki: Natural Healing', 'Practical Palmistry' (!), 'Feng Shui: for beginners' and 'Dreams, Card Readings and Intuition', was the intriguing 'Toestory' course. The brochure states:

*Toestory is your story. Toes reflect the condition of the body, mind and emotions. They can indicate if you are a dreamer or an achiever, whether you dwell in the past or anticipate the future. No matter whether they are long or short, fat or thin, knobbly or smooth, they all tell a story. In this light-hearted workshop you will learn to read toes and come to understand the interconnectedness of the body parts to the whole and how unexpressed emotion effects the body and mind.*

Knowing that I had an impending appointment with a podiatrist I decided to attend the 'Toestory' course and then contrast the techniques and beliefs of these two foot practitioners.

The 'Toestory' class was conducted by Julie Collet (Dip. Social Studies/Dip. Remedial Massage/Dip. Polarity Therapy). Ms Collet used the class as an opportunity to advertise her other courses; a day long, \$115 'workshop investment' on 'crystal healing' and her five day, \$600 certificate award course in 'polarity therapy' – with an option of further training to diploma level offered. The seven hour long 'Toestory' session cost \$75. The course was not nearly as 'light-hearted' as promised. Collet seemingly believes in the 'teachings' she imparts, which is based upon an obscure 1991 book entitled 'Reading

Toes', written by Dutch journalist Imre Somogyi.

The founding of the practice reads more like the diary of a foot fetishist as Somogyi writes of 'operations' where the author could 'spy' on people's feet.

*For years I observed countless toes – rows of bare feet on beaches, in swimming pools, saunas, and outdoor cafes. Gradually I discovered the meaning of the different shapes and positions of toes, and learned to relate the shapes and positions to the personalities and behaviour of people. I'd see things like the macho guy full of aggression and big biceps, whose hidden left toe showed he was masking sexual problems and a tendency towards pessimism.*

Somogyi maintains that his book is the result of scientific research of his claims. Collet comments:

*Somogyi decided that he would examine 40 pairs of feet and, if his analysis was less than 90 percent accurate, he would turn a deaf ear to all those who demanded that he write a book. Needless to say that he passed his own test with flying colours and is very insistent that he did not cheat.*

### Something is afoot

The audience consisted of seven ladies, one of whom was an employee of the Community College and another of whom disappeared after our lunch break. The class began with Collet requesting that her students introduce themselves and share their reasons for attending the course. Caught on the spot I stammered the explanation that I was deeply interested in the foot and its symbolism in different cultures. I hastened to add an interest in reflexology, a revelation that had my listeners nodding enthusiastically in agreement! The other students spoke of their curiosity about the tenets of Toestory and the possibility of 'toe healing'. Collet proceeded to tell us of her life story and experiences in alternative therapy with an emotional tale of years spent following

her 'guru' and her agonising separation from him five years ago – with which, she admitted, she has yet to come to terms.

The initial part of the course was a spiel about 'energy' and 'chakras' – “the feet are our spiritual connection to the planet”. There was no mention of the more pragmatic physical connection! We learned that, “reflexes on the toes and feet are some of the most powerful reflexes for healing in the human body.” Collet stated that the toes, “are the lowest and most negative pole in the body” and the “complimentary pole to the body’s governing headquarters in the head”. We were taught that the toes, “are the most vulnerable site for energy to become blocked in the body” and that the toes, “reflect chronic, long-standing illness and energy blocks” although at no time was their importance for mobility and balance discussed!

'Toestory' teaches that each toe corresponds to a certain part of the body and governs these parts. For example, the big toes correspond to the throat and govern the head, joints, nervous and endocrine systems. We were told that the wiggling of the toe sympathetic to a certain body part can assist in curing/easing the symptoms of illness! This is the main act to facilitate 'toe healing'. Another pearl of wisdom advised that the middle toes govern body temperature and the wiggling of this particular toe can prevent spontaneous combustion! Moreover, manipulation of the second toes, that govern 'body movements', will assist in healing headaches and in the release of 'unwanted air'. Collet relayed to us her recent experience of her vigorous wiggling of her sister's second toe and the horrendous burping and flatulence that ensued!

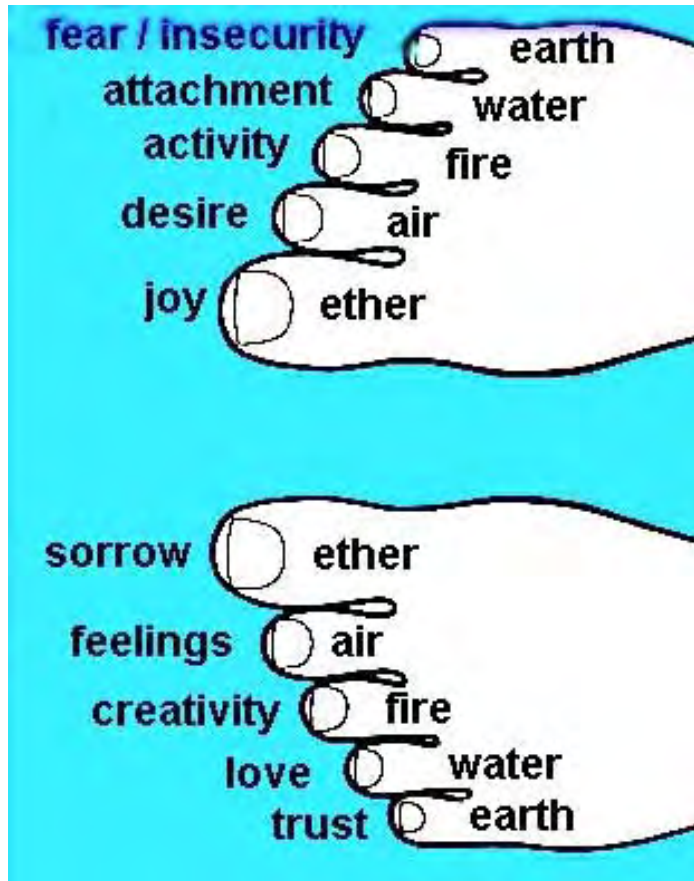
Throughout the course Ms Collet revealed fascinating 'facts' about toes and their stories. Apparently Australians have very 'relaxed toes' due to our frequent exposure to the sun and hence we tend to have more

will “balance the feet and head” whilst lying on your back with your feet raised on the seat of a chair will “balance the liver and spleen and help digestion”. What's more, people who do not like to be touched near

their navel, once the home of their umbilical cord, have blatant unresolved issues with their mother!

At this point in the course I looked up from my furious note taking to notice the College employee student eyeing me suspiciously. Concerned that she has guessed my journalistic intentions, I tried to evade this woman to no avail as she approached me during a tea break. Thinking my cover was blown she asked me sincerely, “Are you very serious about Toestory?” to which I furtively replied, “yes”. She then assured me that I would “make a very good healer”, she could “sense it”!

After a break we were introduced to the concept of 'toe reading'.



A "toestory" foot chart

relaxed and casual attitudes. In comparison, the English have 'compressed toes' due to the cold English weather and the necessity of sheltering their feet. Collet revealed that this explains the 'repressed nature' of the English people. Collet also stated that reading toes could be helpful for those working in child psychology or with handicapped and autistic children as “their toes can tell you what they can't.”

We were taught a number of peculiar actions to perform to aid in the healing of illnesses. The 'meridian tap', an act of patting your body with brisk taps, will “release blocked energy and stimulate flow”. Placing one hand on the back of the head and the other hand on your forehead

*Every aspect of every phalange of every toe expresses an underlying spiritual, mental or emotional energy pattern. When the toes are sore, some part of the body is hurting.*

Indeed...the toes!?!?

*Each line, wrinkle, bulge and contraction, the direction, colour and shape of the toes, all express something about each one of us.*

Collet taught that:

*the development of a corn or callus will indicate an energy block within the body. This inner block makes a particular toe vulnerable and it then succumbs to the rubbing of a shoe. Another toe, which is not carrying a block, will not succumb to such an irritant.*

## This Little Piggy

At no point were poorly fitting footwear or pressure blamed for the development of corns and calluses!

### Footnotes

Some of the 'general guidelines' for toe reading included:

- Lumps, corns, calluses and bunions indicate unexpressed emotion. If they are under the toes the emotion is well hidden and may take some skill to identify.
- All the toes turning upwards indicates chronic ill health.
- Grey and brown lines on the toes indicate deep-seated emotions that still need to be released.
- Claw toes indicate a tendency towards control, manipulation and protection.
- Vertical lines on the toes indicate poor digestion.
- Toes turning towards the big toe indicate a tendency to be too reflective.
- A withdrawn toe, (ie, a toe that drops downwards at one of the joints) indicates a withdrawal in the personality and a tendency to split and postpone decisions.
- Wedge shaped spaces between toes indicates fear and emotional upheaval.
- If the second toes are longer than the other toes this indicates psychic ability.
- Dark, deep lines between the second and third phalange of the fourth toe may indicate past sexual abuse.
- Dry, cracked heels indicate bowel problems.

Ms Collet's diagnostic and curative techniques bear similarity to folk remedies or sympathetic magic. For example, the very silly and groundless advice that avoiding eating the vegetable corn can prevent pedal corns from developing. Furthermore, dry patches of skin on the sole of the foot indicate that a person's 'soul' requires 'cleansing'. This can be remedied by talking sooth-

ingly to the soles of the feet. We were all urged to 'talk' to our toes. According to Collet, we can teach our feet and toes to 'alter their shape' and thus, rectify our illnesses. "Talk to your toes and they will talk to you."

### Back on planet Earth

Following the toestory course I kept my appointment with a podiatrist, Glen McDonnell from the Dan Everson Podiatry clinic of Maroochydore, on the Sunshine Coast of Queensland.

Podiatry deals with the prevention, diagnosis, treatment and rehabilitation of medical and surgical

Australasian Podiatry Council. In Australia, podiatry is a registered health profession and is defined by the various Registration Acts. The Council's website, [www.apodc.com.au](http://www.apodc.com.au), states:

*...to become a podiatrist, a practitioner must complete a Bachelor of Podiatry and be registered to practise in the appropriate state. Post-graduate education, including Graduate Diploma, Masters and PhD level, is available to podiatrists and qualifications may result in developed expertise in diabetes care, podiatric surgery or sports medicine, for example. In some states, additional qualifications are legislatively recognised, allowing prescription and supply of a range of S4 medications.*

I explained to Mr McDonnell the philosophy of 'Toestory' and asked him to comment upon the course.

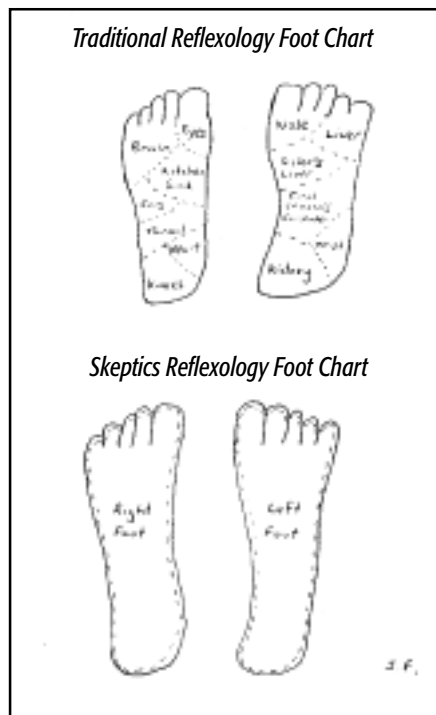
*It's nonsense. The condition and appearance of a person's feet are matters of genetics and how they treat their feet. Feet cannot be used for the diagnosis of unrelated conditions and her concept of 'toe healing' is useless at best."*

McDonnell likened Toestory to reflexology in that both practices relate different parts of the foot to supposedly corresponding organs of the body. "Reflexology isn't worth anything more than a pleasant foot massage", commented McDonnell. Reflexology and Toestory endeavour to use the foot as a diagnostic tool and for treatment of disorders largely unrelated to feet, claiming to treat the body 'holistically'.

The Toestory course was concluded with a refreshing yet slightly confused statement that amusingly contradicted her entire course.

*Toestory gives us a way to initiate the self-healing process. It is not a complete system of diagnosis and cure. That is the well-guarded job of the medical profession.*

Or was this a disclaimer?



Sketch by Jim Farmer

conditions of the feet and lower limbs. Podiatrists treat everything from ingrown toenails to problems arising in the foot due to illness such as diabetes or arthritis. While the toestory course was full of dubious toe information, the podiatry clinic provides the following 'foot facts'. A human has 26 bones, 19 muscles and tendons, 107 ligaments, 38 joints and 60 000 sweat glands in each foot. Each day we subject our feet to more than 2.25 million kilograms of impact.

The industry is well regulated and 80% of practitioners belong to the



# Skeptics in Wonderland

Our peripatetic balloonaut  
reports from the  
Skeptical front-line  
in the USA



Richard Lead, Treasurer of NSW Skeptics, and a legend in his own lunchtime.

## Fourth World Skeptics Conference, Burbank, CA, June 2002

Perhaps I am getting old, but it seems just yesterday the Australian Skeptics hosted the Third World Skeptics Conference in Sydney – but it was way back in November 2000. Given that Conference’s widely-acclaimed success, with keen anticipation beating in his breast, your correspondent hitched a ride in a Boeing to beautiful downtown Burbank in Los Angeles and was not disappointed.

The legends were there. Over the four days of the conference I met the cream of the world’s scientists, medicos, psychologists, comedians, magicians, and investigators. Plus some creationists, who tried very hard not to use that word. More of them shortly.

One of the many reasons I remain a keen member of the Australian Skeptics is the people I get to rub shoulders with. Only a Skeptics’ Conference can gather together such eclectic concentration of of brainpower, and if you don’t believe me, try the occasional accountants’ conference for comparison (never a beard in sight).

I was delighted and honoured to

be invited by CSICOP (the Committee for the Scientific Investigation of Claims of the Paranormal) to address the Conference on financial scams. I believe people fall victim to get-rich-quick schemes and similar skulduggery for the same reason people fall victim to faith healers, telephone psychics, and other nonsense regularly exposed in *the Skeptic*. The human brain sees what it wants to see, and believes accordingly. My talk went over well, with enthusiastic applause every time I bucketed Amway. And amazingly, there are still people in the world yet to receive their first Nigerian letter!

## Prospects for Skepticism

The theme of the Conference was “Prospects for Skepticism - the Next Twenty-Five Years.” An apt theme, marking the twenty-fifth anniversary of the founding of CSICOP. To me it is obvious the next twenty-five years will be no different from the last five-thousand years – there is so much easy money to be made in fleecing the credulous, and so little skill required to do so, that groups such as CSICOP and the Australian Skeptics will never declare victory. What is important is that we not stagnate by continuing to fight yes-

## Skeptics in Wonderland

terday's problems. When did you last meet a UFO nut or a Loch-Ness-Monster believer? As the craziness evolves, we must evolve our focus with it.

### Intelligent? Design

Speaking of craziness: Creationists in the United States are making no headway in having their religious beliefs given equal time in school science classes. Their latest attempts involve the deceit of not referring to their God at all, but pushing the 'Intelligent Design' argument. The 'C' word is buried. The conference held an Intelligent Design debate, pitting two biologists (Wesley Elsberry from the Texas A&M University, and Prof. Kenneth Miller from Brown University) against two Intelligent Design advocates from the Discovery Institute (Dr William Dembski and Dr Paul Nelson). Dr Massimo Pigliucci, associate professor at the University of Tennessee, where he teaches ecology and evolutionary biology, moderated the debate. To quote Dr Pigliucci:

*There has been a consistent attempt by creationists and intelligent design supporters to convince the American public, school boards, and legislators, that it is only "fair" to allow non-naturalistic explanations when we teach the science of the origin of life or of the universe. I maintain that this charge is based on a fundamental misunderstanding of the nature and limits of science and science education. Skeptics need to be aware of these philosophical and epistemological issues in order to be better prepared for the continuous challenge from the creationist camp.*

As Wesley Elsberry highlighted in his presentation, the Intelligent Design movement is not only anti-evolutionary, it is



Meeting old friends. The author with Bob Steiner and Jan Loeb Eisler. The glasses held (ugh) iced TEA!

anti-science, and is religiously motivated and funded. He states:

*The 'Intelligent Design' movement is primarily coordinated by the Discovery Institute's Center for Renewal of Science and Culture (DI CRSC). While the highest-profile activity of the DI CRSC so far has been its anti-evolutionary activism, its long-term goals are far more ambitious. As promulgated in the "wedge" document, early versions of the DI CRSC web site, and seen in the actions of the Fellows of the CRSC, no less than the re-definition of science itself is intended. Despite statements that ID is primarily a scientific re-*



Science fiction legend, Harlan Ellison, holds forth

*search program, the fact is that most of the effort of the CRSC Fellows is directed into political action. While scientific justification was one of the primary goals outlined in the "wedge" document, this area remains little developed and apparently has been abandoned. The current and projected activities of the DI CRSC indicate that the next 25 years will be filled with more confrontation with mainstream science.*

Dr Dembski spoke of the skeptics' prospects in unseating Intelligent Design, and boasted ID is now mainstream. Dr Dembski is a mathematician and philosopher, and holds a master of divinity degree from Princeton Theological Seminary. In his talk he discussed the design argument in a post-Darwinian context and analysed the connections linking chance, probability and intelligent causation. The thrust of the argument is that life is 'irreducibly complex' and could not have arisen without intelligence. The same tired old "Paley's watch" argument, dressed up in scientific jargon.

Interestingly, all four speakers are active Christians. A Christian professor of biology, arguing that life is not so irreducibly complex to require a God, and clearly rebutting arguments to the contrary, is something to witness. I scored the debate 10 to 0 in favour of science, but I confess a bias against any need for invisible supernatural entities. During a lengthy question session, I posed the question to Dr Nelson that if life was created by an intelligent designer, just how intelligent is that designer. (Imagine creating life in an

environment with earthquakes, volcanoes, tidal waves, floods, and other natural disasters which kill millions each year. Not to mention meteors which wipe out most life forms every 100 million years or so! You would call such a designer a cretin.) His answer can best be summarised as vague waffle.

### Urban Legends and other Myths

Other sessions included urban legends (with a focus on September 11 myths and conspiracies), alternative medicine, fringe psychotherapies, investigations, and skeptical education.

The closing session was called Paranormal Around the World, and

gave international speakers a chance to outline the activities of their groups in their respective countries. Unlike most of the other speakers, my talk was upbeat, as I am genuinely confident in the future of the Australian Skeptics. In the past few years, and particularly following the Sydney 2000 Convention, we have received an influx of young, well-credentialed people with energy and enthusiasm, and have a number of pro-active projects under way. Plus we have plenty of targets out there to keep us busy. When I reported that not one Australian State government permitted creationism to be taught in science classes in government schools, the delegates applauded with enthusiasm.

After the Convention, CSICOP arranged a tour of its new Center for Inquiry-West in Los Angeles. This two-storey building has office space, a 100-seat lecture theatre, radio and television broadcast rooms, and a library. CSICOP has the resources to acquire and staff dedicated premises, and with all the nuttiness coming out of California, they chose the right place to build this oasis of reason.

The Fifth World Skeptics Conference is scheduled for 2004, with Spain, Italy, or Peru the likely host countries. Wherever it is held, your correspondent will be there.



## Blatant Commerce

# Merchandise

## News Flash



**Australian Skeptics is pleased to announce the opening of our secure on-line store.**

**At last you can shop for skeptical goodies and even subscribe to *the Skeptic* from the comfort of your home.**

**Just head for our web site:**

***www.skeptics.com.au***  
**and click the *Online Store* link.**

**It's just the thing for renewing your current subscription to *the Skeptic!***



# More Wordplay

Our columnist investigates  
yet wider on the wilder  
shores of linguistic  
misperception



*Mark Newbrook is a professional linguist and consultant on the subject to the Skeptic.*

## Talking to the aliens...

Gary Anthony and I have now written an article for the prominent MUFON ufology journal, inviting contact from anyone who claims the ability to write, read, speak and/or understand (either 'holistically' or more analytically) one or more alien languages. In the article we try to explain the linguistic issues in lay terms and to clarify exactly what is needed for a given case to be usefully investigated. We stress that we will not assume any particular type of explanation at the outset of a case. If anyone responds, we will seek to work with them to analyse the material, as we will with any other such material in circumstances that permit analysis. Watch this space!

## ...and the spirits

In a rather similar vein, I was approached by a man in Victoria who identifies as a psychic/spiritualist medium; he has a tape-recording of himself talking at some length in what he believes to be an unidentified language. He claims no understanding of the material, reportedly experiencing it as channelled from a Native American spirit figure. He had some grounds for thinking that it might be Iroquoian, more specifi-

cally Seneca, and I located some American experts on these languages.

Well, it is clearly **not** Iroquoian – for a start, there are very many tokens of [m], a sound which simply does not occur in these languages – and no one has so far offered any other identification. Indeed, all of the linguists who have listened to the material are agreed that it is probably not linguistic at all, but merely phonetic. In fact, it is similar to glossolalia ('speaking in tongues' in a Christian context) as normally analysed: a haphazard sequence of syllables which are mostly phonologically possible in languages known to the speaker, with more repetition of syllables and of some individual sounds than is usual in genuinely linguistic material and with very little evidence of morphological structure. The main sound used which is **not** found in English is common in the first language of the speaker's wife.

If the material is indeed similar to glossolalia, a psychological explanation seems likely (although glossolalia itself is admittedly not at all well understood). The speaker is understandably unwilling to accept this analysis, and I have no reason to

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doubt his sincerity; but there does not appear to be much more mileage in this case. (I advised the speaker of the possibility of a 'challenge' involving his mediumistic abilities.) See 'Spaces to watch' for the early stages of a loosely similar case in New Zealand.

### Interglish: 'improved' English

One of my spelling-reformer friends is Paul Duerr, who recently moved from Las Vegas to Roswell! His proposal is more dramatic than most, since it involves Interglish, an English-like artificial language with simplified and regularised grammar which would be learned as a universal 2<sup>nd</sup> language (as was intended for Esperanto and such).

This would of course give a certain advantage to native speakers of English, but this might be the price that would have to be paid if speakers of the world's dominant language were to be persuaded to accept such an 'auxiliary'. On the other hand, native speakers might resent what they could perceive as a 'bastardised' form of English (rather as some English-based and other creoles, which are also simpler than 'normal' languages, are denigrated even by their users). Furthermore, it is difficult to keep apart language varieties which are so very similar. Think of the effort involved in speaking a different dialect of one's native language, or even a closely related language. I have heard Spaniards lapsing into Spanish when trying to speak Italian, despite knowing the latter quite well.

Duerr also makes life a little harder for himself by incorporating largely phonemic spelling and therefore having to select a specific English accent for Interglish: General American (inevitably). He thus cannot even advise English-speakers from elsewhere to pronounce Interglish words as they would if they were speaking English. Oh, no: we must all try to sound as if we were middle-class and from Chicago or San Francisco!

### More lost tribes of Israel

I have interacted with supporters of Isaac Mozeson (last instalment). Some are merely amateurs combining Mozeson's ideas with the learning of Hebrew or Biblical Studies, but one Jeff Benner operates on an altogether larger scale. He has a web site closely linked with Mozeson's, on which he argues that Hebrew script kept its pictographic function even after it became alphabetic and that the Hebrew language and its script must have appeared simultaneously when God created Adam with a mature knowledge of the spoken and written language (yes, another creationist). In support of the former claim he cites some fringe and semi-fringe writers, notably Fano, who was one of a mid-C20 breakaway Italian school of non-scientific linguists influenced by the idealist philosophy of Croce. So far I have not managed to disturb Benner's convictions; but he is willing to talk.

I have now read Mozeson's book, and the more I read the surer I am that he does not understand historical linguistics. For instance, he interprets the well-known C19 principle Grimm's Law (which describes a specific historical change within Germanic) as a much more general statement about phonetic similarities, and thus wrongly equates it with a very basic-level principle discovered by the medieval Jewish scholar Rashi, for whom he thus claims precocious precedence.

Another interesting Hebraicist is one Craig, who promotes both Mozeson and Blodgett on his British Israelite site and is again willing to talk to me despite my negative views of these authors. One other fellow in Texas, with whom I came into contact c/o the Skeptics, told me I should read Mozeson's stuff. On seeing my potted review of same, he first deluged me with extreme material and then went quiet.

### Return of the sperm-drinkers

The Finnish sperm-drinker Ior Bock, he of the family which has allegedly preserved the ancestral language Rot (pronounced like *root*), is back in

the news. His ideas are again being invoked in a spirit of dogmatic Finnish cultural nationalism.

Finnish (with the closely related Estonian and the more distantly related Hungarian; all are 'Finno-Ugric') is among the few non-Indo-European languages of Europe, and thus a prime focus of such claims. Some of Ior Bock's associates/followers have completely misunderstood the history of Finnish, notably by taking the technical term *synthetic* ('having many inflectional endings, etc') in its non-technical sense 'artificially constructed' and accusing linguists of pretending that Finnish is not a real language!

A recent article in *Nexus* (groan!) by one Les Whale (a Queensland psychic) argued for the accuracy of the Ior Bock Saga, which apparently exists only in oral form and thus could easily have been concocted in recent times – like the Frisian *Oera Linda Book*, which is (perhaps predictably) cited in this material as support for a northern European civilisation of vast antiquity. The implication is that Rot and its stable-mate Van – which are structured like no natural language but very much like some artificial ones – are the ancestors of all languages, and that Finnish is closest in important respects to this primeval source.

Whale cites in support of all this some recent archaeological evidence of early human settlement in the far north. But, as the relevant Finnish ministry has confirmed, most of this material either is itself of dubious provenance – some of it involves non-standard 'scientific' methods developed in the former Soviet Bloc, or the results of Ior Bock's unauthorised excavation-by-dynamiting – or is being misinterpreted by Whale & Co.

In any case, it does not bear centrally on the question at hand, since no one can know what languages or non-material cultural practices were in use in 100,000 or 40,000 BP. Those who were in Finland then need not have been Finns at all. There were no English people in

what is now England until as recently as 350 CE. And Ior Bock's philology is as bad as ever! But it is swallowed whole by Whale and his sources – along with conspiracy theories rather like those of Nyland, involving the manipulation of whole languages by medieval clerics who inevitably knew no linguistics!

Whale also claims that both Ior Bock and he himself are able to work out the gist of what is being said in languages which they have never learned, relying on the meaningful elements (mostly single phonemes) allegedly inherited by all languages from Rot/Van. I have challenged him to do this in test conditions, perhaps for the Skeptics' prize. He also claims to perceive human auras, and I have challenged him to demonstrate this ability as well.

### Atlantis and probability theory

A Brazilian scientist, Arysio dos Santos, has diverted his energies into yet another catastrophist-diffusionist theory of early history, rather similar to the fairly mainstream theory of Oppenheimer locating the centre of diffusion in a now-submerged South-East Asian continent but also accepting parts of the Atlantis story. (In fact, dos Santos accuses Oppenheimer and others of appropriating his own ideas.)

It is generally agreed that one of the weakest points of Oppenheimer is the historical linguistics, which is erudite but is fringe-like if not strictly fringe in respect of theory. Dos Santos himself is quite sophisticated on this front as amateurs go; indeed, he places much emphasis on historical linguistics, arguing that unexpected similarities (at all the main linguistic levels) exist between languages such as Guanche (Canary Is.), Etruscan and Dravidian (Tamil etc), at frequency levels which exclude chance. When I confronted him with the work of Ringe and others who have applied probability theory to linguistic data and have arrived at the opposite viewpoint, he disputed their use of the theory and their conclusions, claiming superior expertise.

I believe that he is applying the maths to the data in ways which do not hold up, but I am seeking a discussion of the matter with Ringe himself and with others who have worked intensively in this area. Watch this space.

Some of dos Santos' other views – on both linguistic and non-linguistic matters – do appear more obviously fringe (eg, he rejects conventional ideas about proto-languages and language families).

### Unlikely allies? Lyndon LaRouche meets Barry Fell!

The journal *21<sup>st</sup> Century Science And Technology*, associated with Lyndon LaRouche's political, economic and (non-standard) evolutionary theories, has been promoting the late Barry Fell's ideas about ancient scripts and languages and associated claims about early human history, as summarised by his son Julian Fell. In 14:4, for example, these ideas feature in four articles/pieces of comment by Coleman/ Fell Jnr, LaRouche himself and Perfect. In a letter, I pointed out that Fell Snr, a professional academic in an unrelated field and an accomplished language-learner, was only an amateur enthusiast in respect of historical linguistics. Rightly, none of his material has been accepted by the scholarly community, as the journal's authors might at least acknowledge. Other fringe 'historical linguists' are cited here, notably the wild Edo Nyland and Fell's erudite but increasingly feral ally Cyrus Gordon (see my earlier comments on these authors).

LaRouche himself treats historical evidence oddly and firmly believes in a Dravidian-using proto-civilisation in Southern Asia (for once, **not** Sanskrit-using!) with close links to Sumer (rather like Oppenheimer and his near-fringe-linguist ally Manansala). I have had no reply yet; watch this space.

### More of those negritos!

Readers may have seen the article in *Quadrant* by the controversial historian Keith Windschuttle and a col-

league, arguing in support of the theory of a pre-Aboriginal negrito population in Australia (this is a version of the theory promoted by Walsh as discussed in my piece on diffusionism and racism in 22:2). Along with many modernists, I applaud Windschuttle's defence of traditional scholarly principles against postmodernist/relativist excess; but that does not mean that he is always right on specifics (as he himself acknowledges). His rejection of many claims regarding C19 massacres of Aborigines has predictably attracted much criticism, although to me at least the case often seems open. In this present case, he and his fellow author appear to have got out of their depth. Colin Groves has responded, arguing forcefully against the claims made, and we should look out for his piece.

As far as my own area of expertise is concerned, Windschuttle invokes some of the linguistic arguments most notably discussed by Bob Dixon (La Trobe). Dixon – who is very well informed and highly qualified but is also sometimes extremely controversial himself – rejects the standard classification of Aboriginal languages into two families (which might or might not be related in slightly deeper time) and proposes a rival classification (as he admits, still not very determinate) in terms of prefixing or its absence. He suggests that there may have been convergence involving several language families, but that the core structures probably go back to one early ancestor (40,000 BP?).

More favourably as far as Windschuttle is concerned, he expresses a higher level of confidence in traditional stories about major inter-group physiological differences than I would think was reasonable; but his main non-linguistic focus is on the possible validity of JB Birdsell's mid-C20 physiological measurements. Groves regards these data as unpersuasive; but, **if** they were valid, they would appear (superficially, at least) to support ethnic mixture in at least one case, that of the Gunggandi and the Yidindi. This

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would presumably involve linguistic convergence as well. But the linguistic differences in that area appear within normal variation limits for Australia. And of course such mixing in historic times would be too recent for Walsh *et al.* and probably too recent for Windschuttle as well.

By way of a further twist, *21<sup>st</sup> Century Science And Technology* (see above) reports approvingly that Walsh has successfully sued OUP and ANU for defamation, allegedly perpetrated in Rosenfeld's comments cited in my piece in 22:2. Neither Groves nor I had heard of the case. Rosenfeld is now retired and this may involve her personally, not ANU; but we are investigating.

### And now it's the Dutch!

In a book originally published in 1994 and just re-issued with revisions, Rupert Gerritsen proposes that some groups of early Dutch sailors and passengers, marooned in Western Australia, had considerable influence on some of the Aboriginal cultures of the central west coast of WA. A fairly high proportion of the evidence offered is linguistic.

Gerritsen is a WA identity and amateur scholar who has achieved popular publication on linguistic and other issues. In this case his linguistic material has been informed by extensive reading in the discipline, and – although his wish to prove his case is obvious – he has made an honest effort to deal with the technicalities. But his treatment neverthe-

less displays various misconceptions, and in some respects it appears simply naive. These include: the usual popular but rightly outdated comparative linguistic methodology, use of minority/near-fringe/outdated theories, very loose/inaccurate treatment of phonetics/phonology and spelling, implausible proposals on specific cases, some quite large factual errors, etc.

Gerritsen certainly overstates his case. The Aboriginal languages in question do seem to have some unusual features; but in most instances the case that these involve Dutch influence is not strong. There must also be concerns in respect of the degree of cultural and linguistic influence which such groups might be expected to have in such a situation. (But Dutch and Dutch-speakers may have had **some** influence in the area.)

### The ongoing saga of Magree's 'Little Book Of Crap'

Harper-Collins have revised the book by Magree offering help with English and maths (see last instalment). Many of the errors have been corrected, but many clearly valid corrections which I made earlier have **not** been taken up, and there is also some new confusion/error. I have sent the publishers a revised list of mistakes (available on demand). The book is now less dangerous to use, but caution is still needed.

### So HOW long did they live?!

On 3AW (27/6/02), Ernie Sigley, speaking of the virtues of *gingko biloba*, said: 'In the biblical periods, during which people lived to be hundreds of years old, perhaps the world was a little freer of environmental sources of free radicals'. Now **did** they?!

### Spaces to watch!

Bruria Bergman (Herai Song) has re-surfaced, and this issue may at last come to a head before too long. Bergman has also begun arguing that excavation at Herai might yield not only evidence of Jews and Hebrew in the area but also evidence of extraterrestrial involvement as proposed by Desmarquet; she is interested in the possibility of a 'challenge' on this issue, if the funds for a dig can be raised. Matters are also afoot in New Zealand, involving firstly a forthcoming diffusionist book and secondly a man who claims (rather like my Victorian friend) to channel ancient languages that he has not learned (I am working with NZ Skeptics on this latter case). And with help from Olav Kuhn I am reviewing a new book on Sindarin, one of Tolkien's 'Elvish' languages. The currently unfolding movie trilogy has certainly excited yet more interest in what was surely one of the most important books of C20. Even Whale (over-)interprets Tolkien as endorsing his wild claims about Finnish!



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# National Convention

## Melbourne Uni

## Nov 9-10

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# No Room at the Hinn

## Pushing false hope to the faithful

The Sydney Entertainment Centre can hold 12,500 people when the seating is configured for the maximum capacity. On 7 June, 2002, more than that number turned up to see faith healer Benny Hinn do his act of curing people of many illnesses through the power of Jesus. A team of observers from the RatbagsDotCom Empire and the Australian Skeptics (Peter Bowditch, Alynda Brown, Richard Lead, Richard Saunders and subscriber John Sweatman) went along to see the magical Benny but, alas, we got there too late and were left standing outside with the many hundreds of other people who had also not bothered to start queuing ten hours before the show started.

Buses emblazoned with the names of Christian congregations from vari-

ous parts of Sydney arrived, only for have the occupants to be told that they could hit the freeway again because there was no room for them. People in wheelchairs moved through the crowd, and people stared at closed doors and security guards. There was a pall of disappointment that was almost palpable. Inside, the buckets were passed around to collect the tax-free cash.

We asked some of the waiting people about their disappointment and their expectations had they been able to get into the building. What we heard was depressing and bewildering. Some of the ones in the wheelchairs had expected to walk home. Some with diseases and ailments had expected relief. Some had brought written prayers from members of their families.

All had expected that this "healer" would perform miracles. Inside, the buckets were passed around to collect the tax-free cash. As we moved through the crowd, Hinn's henchmen followed, asking people what we had spoken to them about. We



*Peter Bowditch is a VP of NSW Skeptics and a dedicated exposé of pseudo-medicine*



*Skeptics (and a ghost) drowning their sorrows*



were told to get off the private property (it was a public footpath). Earlier in the day, a crew from a television current affairs program had fared even worse and were ordered to stop speaking to people waiting in line to get into the building. It seems that Hinn doesn't want any publicity unless he controls it. The fact that bookings could not be made for the show suggests that Hinn is just as shy about accounting for the tax-free cash that he acquires from the vulnerable, gullible and desperate.

It did not seem possible that all of the thousands crammed into the building could be there to be cured of something and we were pretty sure that all of the skeptics were outside in Harbour Street, so we wondered about the motivation of the other people who had come to see Hinn. We received a clue when we fell into conversation with a young lady in a bar across the street from the venue.

This girl (who appeared to be about 18 or 19) had travelled about 100 kilometres to not get in to the Hinn show, and she invited herself to our table knowing who we were. She expressed a theology and knowledge of Christianity which were so confused and incoherent that it seemed that she was totally detached from reality, and had never



*The author attempts to "heal" Alynda Brown with a blow to the head*

absorbed even the rudiments of the teachings of any mainstream Christian church. It was quite unnerving to sit next to an extremely attractive girl who just talked nonsense. I spoke to her mother at another table and she seemed to be a normal church-goer. I got the impression she was only there because her daughter wanted her to come, so I guess that the silliness was not hereditary. I realise that a sample of one cannot be representative of much, but there is certainly the possibility that Hinn and his like attract people who are desperately seeking some sort of meaningful religious experience, as well as those who are desperately seeking relief from illness. To Hinn they would all be the same, anyway,

as long as they have money to put in the plastic buckets.

I should make it clear that I do not object to Hinn on any religious grounds. I have no idea what his theology is or what he preaches beyond a banal, infantile reading of the Bible. In fact there was a gospel revival meeting at the nearby Sydney Town Hall on the same night and what was going on there was of no concern to me. What I **do** object to about Hinn is that he is exploiting people's hopes and fears for nothing beyond

his own financial gain. He does no missionary or outreach work, he funds no shelters for the homeless, the indigent, for orphans or abused women. He simply takes money and keeps it.

The Sydney Entertainment Centre is in the city's Chinatown district. Within that area it is easy to find prostitutes, pimps, drug dealers, fantan games and other illegal gambling, and producers of pornography. The difference between these criminals and Hinn is that they at least provide some value for money. Hinn just takes and in return offers lies, false hope and (if the stories about people throwing insulin and other drugs onto the stage at his shows are true) potential death.



*A section of the audience who failed to get into the meeting*

# Cold Facts:

## Science and the Australasian Antarctic Expedition 1911-14

A look at an important part of our scientific history



Stephen Martin, an occasional visitor to Antarctica is the writer of A history of Antarctica and the curator of several exhibitions about the southern continent, including Lines on the Ice: Australasian Antarctic Expedition, 1911-14.

In 1911, before Dr Douglas Mawson addressed an audience of potential supporters, he listed the reasons for organising the Australasian Antarctic Expedition. It included the usual reasons for support of an Antarctic expedition; territory, economy, national pride and science, and the unusual: the potential for tourism and for sanatoria. Mawson shifted the points around, adjusting their priority in the talk, but always left science at the top of the list, writing:

*The expedition is an Australasian scientific effort, it will advance and stimulate science throughout Australia.*

Science's utilitarian potential is often used to attract support for Antarctic work and Mawson's list included many examples; meteorology, he wrote would be 'of value in weather predictions in Australia', adding that 'oceanographic and magnetic surveys will be of direct, practical benefit to shipping in Australian waters.' One significant and ultimately successful object of the expedition was the use of wireless operations from Antarctica to land and shipping to the north. Mawson had earlier secured the support of the Australian Association for the Advancement of Science and he listed this as evidence of widespread support for his expedition.

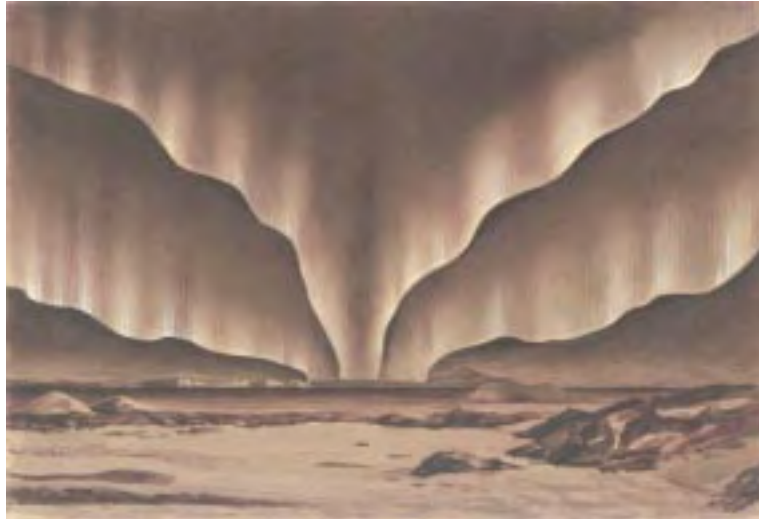
Mawson deliberately chose a team of experienced men and younger university graduates. Of the 37 staff, 20 were science graduates, representing general science, and more specifically engineering, geology, medicine, and biology. Others were trained as collectors or as wireless operators. Two, Mawson and Frank Wild had Antarctic experience and others such as Murphy and Mertz, had Arctic or extensive snow and ice experience.

A range of scientific equipment was purchased or borrowed and additional advice concerning the program of scientific work was provided by Professor T. W. Edgeworth David (Geology) Professor W. A. Haswell (Biology) and H. A. Hunt (Meteorology).

Magnetician Eric Webb who was to take part in the successful Southern party trip to the South Magnetic Pole region in 1912-13, was excited by the new opportunities. Fifty years later, he ironically recalled the working conditions:

*... it was a different world. There were – NO radio, NO mechanical transport, NO aircraft, NO radar, NO flashlights, NO plastics, NO electric light, NO oil heating, NO vitamins, NO sound film, NO computers, NO magnetic tape or equivalent, NO electronics, NO television,*

*NO seismic nor echo sounding, little concentrated food, NO modern compact type cameras, only primitive colour photography, NO pre-fabricated buildings, NO modern conveniences, and many instruments regarded today as obsolete and archaic. Faced with such a vacuum, the average science student today would not know where or how to begin.*



*The Aurora Australis*

The men studied many aspects of the south, including the life of the sea and the shape of the sea floor. As the expedition vessel, the *Aurora*, made its way across the Southern Ocean on several voyages, it stopped frequently to take sea temperatures and to take samples of the sea life. On December 28, 1913, for example, it stopped off the ice cliffs of Commonwealth Bay, made trawls and found creatures that later turned out to be new species.

They established a base and wireless station on Macquarie Island and two bases on the continent, one at Cape Denison, the other at Western Base on the Shackleton Ice Shelf. As soon as possible after landings at these places, the men settled into the routines of observation and taking regular readings from equipment set up near the huts. Checking these became a chore, particularly in extreme weather, but in another sense the practice became a comforting routine. Some practices were not so comforting. In January 1913, Morton Moyes of the Western Base wrote of his experiences skinning a penguin in the confines of a hut:

*A mile further on I came across a penguin, which I slew hip and thigh ... [later in hut] I go on with the Penguin when at the Hut & the place looks like the Government Abattoirs at present. The skin may be all right ...*

A full account of the scientific work is not possible here, but one example of the work, that of assessments of the Aurora Australis, is illuminating.

Throughout the expedition, records of the Aurora and its inten-



*Inspecting Antarctic vegetation*

sity were made. It was widely known that Auroral manifestations interrupted radio signals, and the studies

were to examine atmospherics and the strength of signals in connection with the wireless communication from Macquarie Island to Australia, New Zealand and Antarctica, and magnetic storms as measured by the Eschenlagen Magnetograph. Like a lot of the scientific work of the expedition, it also had its benefits and the beauties of the Aurora were not lost on the men as the following quote from Archibald

MacLean indicates:

*8 June 1912 – At 11pm there was the first auroral display we had yet seen. Great curtains hung suspended from the sky, extending from the east to the west and travelling upwards to the zenith. With an indescribable rippling motion the curtain rays moved, and several times there was a rosy and green colouring to the nebulous pallour. A great arc of vibrant light curved across at the base of the curtains. The wind howled by with drifting clouds of snow, as two of us sat on the roof and watched the luminous curtains.*

The results of the expedition's Auroral work were eventually published in 1925 and 1929, in two large reports. (Series B Vol II) as part of the reports on Terrestrial Magnetism and related observations. These reports, which included some marvellous charcoal and watercolour sketches of auroral features, are a good example of the gradual combination of information concerning the auroral manifestations of the south.

Mawson, who prepared the first volume, *Aurora Polaris*, wrote:

## Cold Facts

An added interest is given to these results on account of the geographic position of the stations. The Main Antarctic Base was in an entirely new sphere. Also it was on the opposite side of the Magnetic Pole to the McMurdo Sound region, where the bulk of previous Antarctic records of the kind had been secured. Finally, it was very suitably spaced in relation to a Western Base (Queen Mary Land) and a Subantarctic Base (Macquarie Island); also to Captain Scott's bases at Cape Adare and Cape Evans, which were contemporaneously occupied for a portion of the time.

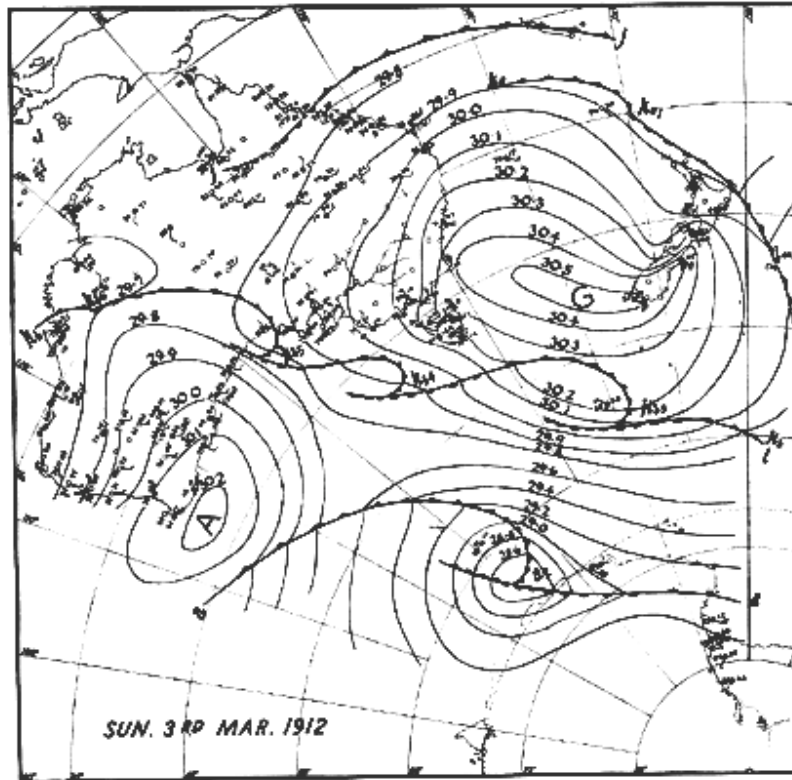
Another example of this analysis is meteorology. In 1947 New Zealand meteorologist Edward Kidson published the results of his work as *Meteorology, Daily Weather Charts extending from Australia and New Zealand to the Antarctic continent*. (Series B Vol VII).

Three hundred and sixty-five charts show the results of observations from Mawson's expedition, Scott's expedition and from weather stations in Australia and New Zealand. For perhaps the first time, the influence of Antarctic weather on that of its northern neighbours was mapped and published.

Mawson and the final party returned to Adelaide in February 1914. There followed a long and tedious process of analysing the work of the expedition and publishing the results. In one case, *Birds*, (Series B volume 2) finally completed by R Falla in 1937, the AAE results were combined with those of another, much later expedition, the British

Australian and New Zealand Antarctic Research Expedition of 1929-1931.

The reasons for this delay are many, money being the most significant, but Mawson was also beset by slow responses to requests for final work and by organisational difficulties. Finally, Mawson signed an



Weather chart derived from expedition data

agreement with the New South Wales Government, which ensured that the papers were published by the NSW Government Printer. In return Mawson gave the 'assets of the expedition' including negatives, maps, organisational papers and Copyright, to the New South Wales Government.

Many of these are now permanently housed in the State Library of New South Wales, where they are preserved. A selection has been made and is on display in the *Lines on the Ice: Australasian Antarctic Expedition 1911-1914* at the State Library of New South Wales until 27 October, 2002.

The science of the expedition was great and influential. The planned and careful collection of information bore fruit in over 90 published Reports. The work is still valuable. For example, the details of tide gauge measurements, available at the State Library of New South Wales have recently been added to a world-

wide database of historic tide measurements. Notes of whale and other mammal sightings published in the Reports are useful for long term understanding of Southern Ocean life. And measurements of the temperatures and humidity in Mawson's Hut 1911-1914, are now used in studies relating to the long-term conservation of this historic site.

In 1964 Eric Webb wrote about the struggle and boredom of dragging sledges across the ice. But there were motivations:

*Where and when man has enough*

*spiritual inspiration, he can indeed move mountains and does survive and surmount incredible conditions. Admittedly we were keyed to face the unknown, the unique, in the spirit and by the rules of adventure; but our only aid in the inspiration category was scientific search.*

It's an interesting point to make and one that surely sustained many of the men while pursuing their work. With a conscious and deliberate plan of scientific work and the perseverance of men like Webb, the Australasian Antarctic Expedition was well served by its scientists.



# Chinosaurs in Sydney

On July 5, NSW Premier, Bob Carr, officially launched an exhibition of Chinese Dinosaurs at the Australian Museum in Sydney, before an audience consisting of the cream of the movers and shakers in the palaeontological community, the media, and a couple of awed Skeptics. Chinese Dinosaurs is the largest dinosaur exhibition ever to visit Australia.

Earlier in the day, at the media launch, the Premier together with Australian Museum Director, Prof Mike Archer, had engaged in a flight of whimsy in which the Premier said that Mike had recovered some dinosaur DNA and was planning to clone some of the beasties. He advised that the Malabar Rifle Range would be made available for the project, but was concerned that huge vegetarian sauropods consuming up to 260kg of vegetation per day would be incapable of meeting the state's gas emission standards. Most of the journalists present got the joke.

Twelve complete skeletons of dinosaurs will dominate the Museum's entire ground floor, among them an enormous 26-metre long sauropod, the Mamenchisaurus, and the unicorn-crested Tsintaosaurus. These are not replicas - most comprise at least 65 per cent genuine

fossilised bone. For those whose exposure to large dinosaurs has been restricted to books and films, seeing



*Dinosaur promotion at Australian Museum*

these giants "in the bone" comes as something of a shock – they are very BIG.

## Acknowledgements

### Sponsor

*The Australian Skeptics shares with The Australian Museum a commitment to public education about the overwhelming scientific evidence for evolution as the process that has and continues to produce the diversity of life on earth. For this reason, they have sponsored The Australian Museum to enable it to bring to Australia a range of the newly discovered Chinese feathered dinosaurs as part of 'Chinese Dinosaurs'.*

*These 'found' missing links between reptiles and birds demonstrate that birds evolved from dinosaurs. As evolutionary links, they falsify the unscientific claim of some Creationists that birds did not evolve from any other kinds of organisms but were instead created as birds—a belief clearly not supported by the extraordinary evidence in front of you now.*



Australian Skeptics Inc.

*Skeptics sponsorship plaque*

For the first time in Australia, four remarkably-preserved fossils of small feathered dinosaurs and some of the world's earliest birds will be on display. An exhibit demonstrating the evolutionary transition from dinosaur to bird is sponsored by Australian Skeptics.

Australian Skeptics is proud to be the sponsor of the feathered dinosaur part of the exhibition, as these Chinese 'dragon birds' provide convincing evidence of the existence of 'transitional species' in the form of 'missing

links' between dinosaurs and birds. These 'transitionals' have long been disputed by creation 'scientists' in promoting their anti-science brand of puerile pseudo-theology. We do not imagine that **any** evidence will convince these dogmatists of the falsity of their propaganda, but it should help promote an understanding of the real world for those in danger of becoming victims of that propaganda.

Opening shortly before the NSW school holidays, this exhibition has already attracted huge crowds of curious school children, the group most at risk of being misled by creationists.

Professor Archer said, "After visit-

## Chinosaurus

ing the Chinese Dinosaurs exhibition people will fully appreciate that dinosaurs are not extinct... they're alive and well and singing in your back yard." A rather telling and amusing display shows a group of magpies sitting on the fossilised skull of one of their remote ancestors, *Tyranosaurus Rex* (see photo).

Highlights of the exhibition also include the awesome Velociraptor – made infamous by the film *Jurassic Park* – towering, flesh-eating allosaurs, one of the world's oldest stegosaurs, and a child-sized, parrot-beaked dinosaur. As well as dinosaurs, the exhibition will feature dinosaur eggs, claws, teeth, skeletal

spines, large plesiosaurs, tiny nothosaurs, turtles and other marine reptiles.

The exhibition at the Museum will remain open until February 2003, and Australian Museum authorities are negotiating with other Australian (and NZ) Museums to extend the visit.



*Maggies showing scant respect for grannie*



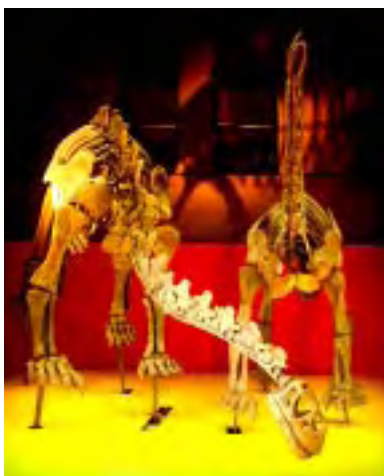
*From one old fossil to another: The Editor inspects a feathered dinosaur*



*Homo sapiens grazing*



*Oviasaurus - Oh my, isn't she big?*



*Shunosaurus grazing*

**On View: Chinese Dinosaurs**

**From 6 July 2002 – 23 February 2003**

**Location: Australian Museum,**

**6 College Street, Sydney**

**Telephone: (02) 9320 6000**

**Website: [www.amonline.net.au](http://www.amonline.net.au)**

# Musings of an Agnostic

## Looking critically at some of the Big Questions



*Ben Morphet is a mathematician by training and a software engineer by trade. He would be a paid-up member of Agnostics International, but he doesn't believe they exist, so he's a Skeptic and a Mensan instead.*

I've always been a bit amused by the proof for the existence of God by Descartes. It runs along these lines:

*I have an innate idea of God as a perfect being. Clearly God necessarily exists, because, if he did not, he would not be perfect. QED.*

ie, God must exist, because existence is a part of perfection.

Of course, this assumes that existence is a characteristic of perfection, which needn't be true, so the argument doesn't logically follow. But let's put that objection to one side, because it might spoil the fun. Instead, let's take the argument further.

If one is more perfect than zero, why not more? Clearly it is more perfect if there are more perfect Beings. So having two Gods is more perfect than just one, and ten is more perfect than two. Take this to its logical conclusion, and clearly there have to be an infinite number of Gods. QED. I'm not sure that the Christians would be pleased with that conclusion, though the Hindus might be.

But I shall put all such philosophising to one side with a belly laugh, because normally questions about the nature of the gods turn out to be fundamentally empirical.

Why? There are limits to rational argument. You can figure out which

gods *can't* possibly exist. They'll be ones which contain inherent contradictions. So for example, if you tell me that a god is both omnipotent, and yet unable to save someone from dying in a car crash, I can prove that your god can't exist. Why? Because being omnipotent means that you can do anything. But nobody could disprove the existence of a god who was omnipotent and chose not to save someone from dying in a car crash.

Religions are usually smart enough not to proclaim gods which can be disproven from an armchair. So "Do gods exist?" usually becomes a question more like "Do zebras exist?" or "Do unicorns exist?" That is, we must get out of our armchair and start looking. If we find the gods, they exist. It's not like a mathematical puzzle which we can figure out with pen and paper.

We know zebras exist because we found them, and we're pretty sure that unicorns don't exist, because we've been looking for them for centuries and have no confirmed sightings.

So how is our search for the gods going?

Well, there are certain inherent difficulties about finding a being who can neither be seen, heard, touched, tasted nor smelt. And who doesn't do interviews.

### An Hypothetical

God agreed to do an interview with me for *the Skeptic*.

**Ben:** Thanks for doing this interview.

**God:** It's a pleasure.

**Ben:** May as well start with the big one: what's the meaning of life?

**God:** Now why lead off with that question? There are lots of questions which you spend much more time worrying about.

**Ben** (caught off guard): Well, I ... which ones?

**God:** For example, "What do I do with my hands?" You've spent months of your life puzzling about it. And the answer is – it's perfectly alright to leave them hanging by your side.

**Ben:** But ...

**God:** And the other one! Does your mother-in-law hate you? The answer's no, of course she doesn't. She's quite fond of you. Stop being so insecure! You're fine.

**Ben:** (blurts out) But what's the meaning of life!?

**God:** But Ben, you already know the meaning of life.

**Ben:** No, I don't.

**God:** (slowly, as if explaining to a simpleton) It's an ordinary English word. Life is a characteristic of beings which can reproduce, respond to stimulus, and respirate. That's what life means. But you've been using the English language for decades. Didn't you know that already?

**Ben:** No, the *meaning* of life!

**God:** You know what the word means!

(Awkward pause)

**God:** This always happens when I do interviews! Every interview gets to this point, people asking me to explain about ... respiration and stuff. And I just think - why do I bother?

**Ben:** No, not *that* meaning of meaning – the other meaning of meaning!

**God:** Oh, this is useless. I'm finishing the interview.

Then God vanished, and I was sitting in an empty room, staring at my

hands. Wondering what to do with them.

Ironically, atheism is harder to prove than any of the religions, and yet it may be correct.

To prove the existence of a god, all you have to do is find your god, and get them to submit a body of evidence to the public record. That's hard. But how could you disprove the existence of a God who happens to live in the Andromeda Galaxy, and who has no plans of visiting Earth? To prove the non-existence of all gods, you have to know pretty well everything about the universe. That's much harder.

So atheism is virtually unprovable – yet it might be right. (Me? I'm not battling for the atheists. I'm just an agnostic.) But it gets worse. Consider an atheist who was able to prove that there is no God, because she knew everything. Would she not herself ... be a god? After all, omniscience is a characteristic of gods. To be an atheist, does one have to be a god?

(Perhaps if an atheist could prove that God doesn't exist, then I, an agnostic, could prove that atheists don't exist. Then all we'd need is for God to prove that agnostics can't exist, and we've completed the circle.)

I pondered for a while why so many ideas which are central to religions are questions which are not capable of being answered based on evidence. You know the kind of question: "What is the nature of a being which can be neither seen, heard, touched, tasted nor smelt?", "What do people experience after they are dead, and therefore cannot be interviewed?", "What is the meaning of life?", and so on.

Religions seemed so unfortunate – they had to grapple with all of these questions, and with not a skerrick of evidence to go on! Questions which, by their very definition, cannot have evidence. You have to feel a bit sorry for these people who have to struggle in a field so unrewarding, so lacking in the certainty that comes from proof. Or at least evidence beyond reasonable doubt.

Then I realised – maybe this isn't all bad luck! Maybe sometimes they seek out questions which can't be answered based on evidence, intention-

ally! Maybe they set about coming up with questions about which there can be no evidence, and then they provide answers for them. If that's what they're doing, there's this wonderful pay-off. They know that they can't be proven wrong, so they can get away with saying whatever suits them. Oh, so cynical, for one so young!

It's always amusing watching the reactions of religions when a question is finally able to be answered based on evidence. If the religion had an opinion on the subject, there'll be a sudden regrouping. If the religious answer can be mangled into a form which roughly agrees with the science, then this taken to be a proof of that religion. (Hoorah!)

If the religious answer is fundamentally incompatible with the science, then the religion breaks into two camps. The first group says "our religion is correct, and the science is wrong!" The second group says "Look, what we're dealing with here in the scriptures is religious metaphor, and it was never really meant to be taken literally." This happened with evolution, creationism, and the book of Genesis.

**Conjecture:** the next "unanswerable" question to be answered by science will be this one: "Where did the universe come from? Why does anything exist, rather than nothing?" Some very interesting things are coming out of the intersection of quantum mechanics and cosmology, which might be able to provide an answer.

That'll put the cat among the pigeons. Oh, and one more thing.

I've heard it alleged that after I die, I will be judged by God. My intention is that I will start my defence by saying "God, you gave me an intelligent, rational mind, and then gave me ambiguous evidence as to whether or not you exist! So I became an agnostic. What else could you expect me to do?"

Apparently God will abruptly end the proceedings with the verdict that I should be thrown into the lake of fire and tormented for eternity. (Ouch!) Is it just me? Or is God's whole role in this scenario ... deeply unintelligent/





# Russian Roulette

I'm just back from 6 weeks in the former Soviet Union, where I was struck by the extent to which the Russians and Ukrainians seem to be making up for decades of enforced atheism and materialism by enthusiastically embracing all manner of irrational beliefs and practices. Touts infest the streets of Moscow, St Petersburg, Kharkov and Kiev, accosting passers-by with flyers pushing get-rich-quick schemes and quick-fix psychology workshops. American evangelists prey on the desperate and gullible, and long-bearded, black-clad monks stroll the cloisters of newly-revitalised monasteries, for all the world like latter-day Rasputins, each with his retinue of middle-aged female groupies.

Not everyone is easy prey for the Americans. Younger, educated net-savvy types tend to be scornful of foreign evangelists, although they are embracing their native religion in a way fascinating to this ex-Catholic atheist. I met several such people, (the FSU being full of impoverished academics willing to vacate their apartments for wandering westerners at the drop of an American dollar and move in with babushka for a few weeks), and to a man and woman they sported crucifixes round their necks and reported themselves to be churchgoers.

Yet they know nothing of the ideology or narratives of Christianity. They will proudly show off the

beautifully-restored churches, but the stories depicted in the paintings, frescoes and mosaics mean nothing to them. The annunciation, the assumption, the sermon on the mount, the wedding feast at Cana, the miracle of the loaves and fishes, the last supper, purgatory – never heard of 'em!

So why do they go to church? I suspected it had to do with resurgent nationalism in Ukraine and a reaction against Soviet atheism generally, but the people I talked to were surprisingly non-committal about this, in keeping with the widespread ambivalence about the demise of the communist regime. What they did say was 'It's peaceful and calm here, it gives me a good feeling inside', and similarly in that vein. Religion as meditation. Christianity without indoctrination.

The only buildings in top-notch condition, apart from the homes of newly-rich criminals, are the churches. (Money's pouring in from wealthy expats.) Can't complain about this I suppose, as we're talking about a magnificent cultural and architectural heritage here. But it was sad to see the contrasting state of schools, hospitals, universities, and often museums and art galleries too.

Sort of funny/sad was the pamphlet in the Hotel Rossiya in Moscow extolling the features of their health club. This place of marvels offered sundry mystifying therapies such as

'neuron-stimulation to improve micro-stimulation', 'electro-stimulation to reduce a volume', 'curative gymnastics on stimulator', and 'anti-cellulite wrapping around with seaweeds.'

You could also have a go in the 'Sunspectra-9000 Capsule', which operates on the principles of 'heat, alfa and tetrilla (*que?*), audio-influence, ozone therapy, aroma therapy and vibrato massage'. This would allegedly relieve stress, depression, skin complaints, sleep disturbances, muscle pain and tobacco addiction, as well as reduce weight, increase work capacity, adjust immunity, normalise functioning of your central nervous system, regain your internal organs activity balance (*sic*) and generally de-toxify you.

Rather more appealing was honey massage. Nothing mysterious here, but are they talking therapy or recreation? If the latter, I think I'd prefer to make my own arrangements, thank you very much.

Most intriguing was the colon hydro therapy, described thus: 'Painless irrigation of thick bowels during 40-50 minutes makes it possible to purify one of the slugs and mucus.' And no, I didn't try it. It was both slugs or nothing for me.

*Annie Warburton is Hobart's leading radio broadcaster.*



# Doing it Tough: Taxation and the Church Revisited

**Taking another look at a  
taxing question**



*Liz Armstrong is a training manager and a long-time subscriber to the Skeptic.*

As I was browsing through the *Great Skeptic CD*, I happened to revisit Richard Lead's article "An Oasis of Privilege" (17:4). Richard told us that in the 1996 census 2.9 million Australians said they had no religion and yet because of the tax exemptions allowed to the churches and their ministers, everyone pays for churches, whether they subscribe to one or not. Richard also told us that whether or not churches effect any positive social outcomes, they don't mind storing up the cash in the meantime.

Churches are definitely commercial ventures. That's what "organised religion" means. Churches don't have to pay dividends to demanding shareholders and they aren't run by the Dodgey Brothers, so they're not likely to suddenly snuff it and end up in the hands of the receivers.

Churches in Australia and other countries have very generous exemptions from taxation. They still have to earn money in the first place from their parishioners though, and as Richard points out, that is getting

harder and harder all the time, since the number of parishioners is steadily on the wane in Australia. It's a bear market for parishioners.

## **The German experience**

In Germany, the population pays a "church tax" which is somewhere between 4% and 9% of income, collected by the government and given directly to the churches – the Catholic and Lutheran churches. The amount of money received by the two main churches every year from this form of revenue raising is around US\$10 billion. Thus the church tax is an enormous funding engine.

What do the churches do with all this money? Here's the same question asked differently: Who is the biggest landowner in Germany? The two main German churches own an area equalling roughly the size of the German state of Bavaria. They also own banks and have shares in breweries, newspaper publishing, vineyards, hotels, restaurants, steel companies, life insurance and home loan companies.

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## Where it began

It's worth taking a look at how this tax came about. In the early 1800s, land which had been owned by the churches in Germany was given to the aristocracy in order to replace property which the aristocracy had lost during the Napoleonic wars. It was decided that the churches would be compensated for this property by annual payments out of tax revenue.

In 1919, the Weimar Republic mandated that the state subsidy of churches should cease; but it didn't. In the years leading up to Hitler's assumption of power, the most serious potential threats to him were the Catholic and Lutheran churches, both of which at that time objected to the excesses of National Socialism.

In 1933, Hitler secured an agreement that in return for maintaining their state support, the churches would not oppose the Nazis. Shortly thereafter, both churches began to participate in advancing the goals of the Nazis. The Lutheran press started to talk about the Jews as the natural enemies of Christianity and the Catholics agreed to swear an oath of fealty to the Third Reich.

Even though the allies drafted a new constitution for Germany after the war, which guaranteed the separation of church and state, the state support of churches remained in place. It's nothing if not resilient.

The clergy of both main churches are also subsidised by the government. Most Germans still pay the church tax even though it's possible to get out of it. When you become eligible to pay tax in Germany, you are asked to declare your religion. If you say that you are either a Catholic or a Lutheran, the government will collect the church tax out of your income and transfer it intact to the church. If you say that you are a member of any other church or that you are an atheist, the tax is waived.

Given that option, it should be fairly safe to assume that people would say they were an Atheist or an Anglican just to save some of their income. Fairly safe, but incorrect.

Most Germans pay the tax; whether through habit, a sense of duty, familiarity, or actual religious belief, is uncertain. Not paying the tax only means that an individual would not have permission to get married, buried or baptised in a Catholic or Lutheran church. Evidently this is enough to encourage a high proportion of Germans to continue to pay the tax, even though the chances of getting married, baptised or buried in any given year isn't all that high. Attending church is free.

People pay the tax. It's not even controversial. Well, just a bit.

## The case of Scientology

Back to Richard Lead's article. In 1983 the High Court of Australia unanimously declared the Church of Scientology to be a religion, thereby allowing it to enjoy generous exemptions from taxation.

In June 1998, a parliamentary investigation in Germany concluded that Scientology was NOT a religion but an anti-democratic political organisation, which merited continued surveillance. Obviously someone on the team of investigators had read Richard Lead's article, describing the core premise of Scientology as "a piece of second rate science fiction".

The interior ministers of all 16 German states recently called for tougher measures against the "cult", calling it an organisation that combines elements of business crime and psychological terror against its own members under the protective cover of a religious group. Strong stuff.

The Scientologists are pretty dark with the German government, which only transfers tax revenue to the two main churches in that country. The German government is equally dark with the Scientologists. In the 1980s Bavaria barred Scientologists from holding jobs in that state's public sector. This act was severely criticised by the UN Human Rights Commission.

## Taxation benefits

The American IRS (tax office) even wrote to the German government, saying:

*This letter serves to inform you that the IRS has issued ruling letters recognising the tax exempt status of the Church of Scientology International and its subordinate churches and related organisations, under Section 501 (c) (3) of the Internal Revenue Code. The foregoing churches are exempt from US federal income tax on the ground that they have established that they are organised and operated exclusively for religious or charitable purposes and that no part of their net earnings inures to the benefit of any private individual.*

(IRS to German government department August 1994.)

You'd have to wonder why the IRS would attempt to convince the German government to do likewise and make the Scientologists exempt from taxation. What could have been in it for them? The letter goes on to say:

*You may wish to share this letter with other interested and relevant offices within your jurisdiction. Please contact the undersigned with any questions.*

In 1998, shortly before Scientology had been found NOT to be a religion in Germany, a German security agent was arrested in Switzerland on suspicion of spying on the church of Scientology. Since it's frowned on to carry out espionage activity in someone else's country, the agent was charged and the Germans apologised to the Swiss. However, they remain defiant in their strident opposition to Scientology, which the Germans regard as purely a money-making organisation.

Pot calling the kettle black? The German government pays nominated churches more than US\$10 billion a year out of tax revenue and they're calling someone else a money making organisation!!

The irony of this isn't lost on the Scientologists who believe they are

## Doing it Tough

being discriminated against by the German government and have compared their treatment in Germany today with the treatment of the Jews fifty years ago. This is a gross exaggeration of course, since there's only somewhere between 10,000 – 30,000 Scientologists in Germany and not receiving money hardly compares with the slaughter of millions of people.

So what's the origin of the match Germany v Scientology. The creator of Scientology L Ron Hubbard first published his *Dianetics* book back in 1950. Until his death in 1986, Hubbard continued to believe that Germany was his number one enemy and a painful thorn in his side. He gave strange explanations of how and why the Jews were persecuted. He made unsubstantiated claims of a "German conspiracy of psychiatrists" against him and his church.

A conspiracy of psychiatrists? A bit like a murder of crows or a pod of whales.

### In Britain

The church of Scientology was barred from charitable status in England two years ago by the British Charity Commission, which ruled that the so-called church failed to promote the moral and spiritual welfare of the community. Is it possible that this Commission could have read Richard Lead's article as well.

Earlier this year, it was reported in the London *Times* that the Scientologists had forced the search engine Google to remove a link to a website called *Operation Clambake*, which apparently referred to the church as a "money making cult".

Hard to know what the updated score is in the match between Germany and the Church of Scientology. God knows – so does Kafka.



### Response from Richard Lead:

Liz Armstrong's excellent article has come at an apt time. Things are happening in Australia, as we shall shortly see.

### Church taxes around the world

Germany is not the only country to levy a church tax. The religionists have been more successful than just making the taxpayers of one country their victim.

Finland has a church tax. Switzerland, which has a reputation for being a tax haven, has a church tax. This tax is not just imposed on individuals – it is imposed on corporations. Most Cantons (equivalent to our States) in Switzerland levy a church tax on corporations. This tax is a percentage of the Cantonal income tax. For example, the Canton of Zurich currently imposes a church tax of 12% of the Cantonal income tax.

Of course, this silliness has no effect on we intelligent Australians, does it? Australian corporations operating internationally receive a foreign-tax credit against their Australian income tax for taxes paid overseas. These taxes include church taxes, resulting in the Australian taxpayers indirectly paying for such religious greed. Just as well our public hospitals require no additional funding.

### What is a charity?

Federal Treasurer, Peter Costello, issued a Press Release on 29 August 2002, announcing that the Govern-

ment will enact a legislative definition of charity for the purposes of the administration of Commonwealth laws. The definition will explicitly allow not-for-profit child care available to the public, self-help bodies that have open and non-discriminatory membership, and "closed or contemplative religious orders that offer prayerful intervention for the public", to be charities.

Will the churches' commercial activities remain tax exempt? Mr Costello said:

*In order for them to be able to continue to contribute fully, they need to be able to participate in a wide range of activities including, at times, commercial activities. The Inquiry recommends that commercial purposes should not deny charitable status where such purposes further, or are in aid of, the dominant charitable purposes or where they are incidental or ancillary to the dominant charitable purposes."*

So Sanitarium will continue to earn \$400 million tax-free dollars annually for the Seventh Day Adventist Church, merely because the members of that Church "offer prayerful intervention for the public." I am prepared to stand in a bucket of cold chutney while offering prayerful intervention for the public, if my commercial activities thereafter become exempt from income tax.

A former Prime Minister once fought an election campaign on the promise to turn Australia into the "clever country." We are still waiting, Bob.



# Moving?

Don't forget to tell us so you can continue to receive your quarterly dose of distilled (90% Proof) skepticism.

# A Breath of Fresh GASS

## Richard Saunders reports from the front line:

I think I have found a new recipe for pure enjoyment. The ingredients are as follows;

- 1 bed of nails
- 3 days on your feet
- 200 tea spoons
- 1000 school children

Throw in some general public, 'psychic readings', and the most important ingredient of all, a team of enthusiastic Victorian Skeptics. What do you get? The Australian Skeptics stand at the Great Australian Science Show, Museum of Victoria.

On the first day I gave a talk to about 90 school kids in one of the lecture theatres and showed them how dowsing seems to work. The kids laughed and so did I. Their questions were great and ranged from UFOs to the Loch Ness Monster. On the way out one of them turned to me and said "Thanks Skeptic Dude!"



*Rosemary Sceats takes it easy on a bed of nails*

The rest of the time I tried to simply help out at the stand the best I could. This seemed to be a mixture of spoon bending lessons, showing people the 'what is your real star sign' computer program, lying on the bed of nails and answering questions. I even found time to sneak away and look at the rest of the Museum. So that's what Phar Lap looks like!

The real stars of the show were all the Vic Skeptics who gave up their time to organise and attend for some or all of the three days. I must make a special mention of Lynne Kelly who did a 'psychic reading' act that would put any 'real' psychic to shame. Even though Lynne explained to each 'client' (she had a sign that said she was charging \$0) that she was a fake, most gave her an accuracy rating of 80% or more. In fact one woman gave her 99.9%!

Getting the message out is one of the best things we all can do. Hundreds of people passed by the stand and were given information about the Skeptics and what we do. To see the expression on people's faces as they thought about what we said was priceless. Hats off to the Victorians!

Looking into the future (well, a damn good guess anyway) I can see Melbourne being invaded by a gang of keen Skeptics from all over the country for the next Great Australian Science Show.



*Lynne Kelly demonstrates "chopstickology"*



*Richard S among cheerful Vic Skeptics at GASS*

# Investigating God

An incisive look at the God phenomenon from a scientific perspective

***The Ghost in the Universe: God in the Light of Modern Science*,  
Taner Edis; Prometheus Books  
2002**

There is an old SF story by Frederick Brown from the days of computer punch cards. Technicians had finally wired together the most powerful computer in the world. Super-fast and with every sort of knowledge in its memory banks, it was set to answer any question. As an initial test, the techs decided to give it the biggest question of all, the one people have been working on for as long as they have been thinking: "Is there a God?" The tech typed in the question, the rows of lights blinked on and off and the reels of tape ran through. Finally the paper tape reeled out of the computer with the answer typed on it: "THERE IS NOW."

Taner Edis has the answer to the big question, and he is qualified to submit an answer, given the amount of thinking he has done on it. A physicist, he has for years run the cerebral and entertaining e-mail Skeptic Discussion List (see [www.csicop.org/bibliography/list.html](http://www.csicop.org/bibliography/list.html)), which is devoted to the discussion (read "debunking") of such topics as astrology, psychic powers, creation 'science', miracles, and

more. So you can probably guess where he stands – there are thousands of gods you don't believe in, and chances are he believes in even fewer than you. In *The Ghost in the Universe*, his first book, he tells why he thinks that a naturalistic view, based on science, is a better explanation for what we experience in the world than any reach for spiritual answers.

It is clear, wide-ranging, and intelligent, and it brings in topics from philosophy and science explained at a level accessible to readers with no expertise in those fields. It perhaps will swing no one from the spiritual camp, but those who wish to stay within it with intellectual vigour will do well to examine the arguments here.

Refreshingly, this is not just another examination of religion versus science. Edis starts with an admission that accepting that the world is a godless, accidental place seems crazy and against common sense, but it is one that has had more evidence for it as the centuries have gone by. He begins with the philosophical arguments about God. The 'proofs' are here: "A perfect being must exist, since if it did not, it would not be perfect. Having made God pop into existence by sheer force of logic, we now break out the cham-



Rob Hardy is a psychiatrist from the USA and a regular reviewer for the Skeptic.

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pagne.” This is the sort of proof atheists have been poking holes in for years. I doubt that anyone suddenly starts believing in any god because of such a proof, but as Edis points out, the equivalent disproofs (for instance, “No perfect deity can create evil”) are not likely to turn anyone into a nonbeliever either. Edis is skeptical that we will gain much knowledge from philosophical arguments one way or the other, but would do better to examine the idea of a universe with God as the main actor; this is the sort of God in which many people believe, the one who created and maintains the universe.

### Cause and effect

Unfortunately for such beliefs, discoveries in physics, astronomy, and biology have given such a God less and less to do. The skill of God in using circles, the perfect shape, as the path of planets around the sun used to be much admired, until it was discovered that they did not move in circles. Then the godly miracle was that all the planets revolved around the sun in the same plane, perfection compared to having them zip over and under like cartoon pictures of *The Atom*. Physical laws, however, dictate that just this near-planar alignment should occur. The Newtonian revolution turned many intellectuals into Deists who thought that God had started the Universe, only to let it run on without further interference. The argument that there has to be a first cause God is a strong one that withers under quantum physics. We are used, in day to day life, to examining causes and effects, but we are guilty of looking only in our own scale of neighbourhood.

### Quantum acausality

In the quantum world, things happen without being caused, and the Big Bang was a quantum event; the chain back to the first cause is broken. Of course Evolution is covered, in only a chapter, which shows that Edis’s book is about much more. Life is surely complicated, but it does not need a guiding hand. It needs ran-

domness. The randomness can be harnessed to ratchet up to increasing complexities. This is not a godly randomness; we cannot conclude that a god has made the randomness just so, for not only would that be causal design and therefore not really random, but more importantly, the inference that such a god is tinkering in such a way cannot improve our understanding of how the world works. Physics has shown our world as a framework for random accidents; it is not a purposeful place.

### The purpose of purpose

But our purpose is essential in the views of scriptural history, and generally people do not believe in a god derived from natural science, but one from scripture. One of the strong points of Edis’s book is that he is not only well acquainted with Bible scripture, but with Quranic scripture as well. The archeology that is currently showing the lack of historical accuracy in the Old Testament stories is not emphasized, but more importantly, Jewish, Muslim, and Christian history are demonstrated to be human creations. The stories in the scriptures were not historical accounts, but tales with a theological point. It is clear that such figures as Jesus and Mohammed had some sort of religious experience, but so do those who, for instance, gain wisdom by astral travel to other planets. Religions are built on supernatural explanations of these experiences, and historical accidents involving national might and economics take over to make them influential.

We could accept that a God was present and pushing the world along if there were some interruption in the natural flow, some miracle or paranormal event. The eagerness to believe in such events is very high, but the evidence is extraordinarily low: “Those of us who are stubborn skeptics, well, we get along without magic. And late at night we sometimes wish we could still storms and read minds.” Wishes are insufficient; psychological and neurological evidence indicates that our brains are engaged in examining an unmagical

world, and spirits, souls, or direct contact with some ultimate reality are all equally unlikely.

Edis discusses the idea that science is overrated; the fundamentalists have been saying this for a long time, and have recently gotten support in this particular idea (although they might not like to acknowledge it) from postmodern philosophy. Belief in science may just be a social construct arbitrarily chosen, with no inherently better ability to explain the world than an equally arbitrary fundamentalism. Edis shows that there is not a transcendental guarantee “out there” that reason, evidence, and replicability are the best way of looking at the world, but there still are no real competitors. Similarly, he sees no transcendent moral reality, no good and evil “out there”; morals instead are a product of our genes and our social, collective effort to live together and incorporate conflicting interests.

Believers should be grateful that they have such a gentle critic. It could only be a fundamentalist of insecure faith who would accuse Edis of trashing religion. In fact, in intelligent opposition, Edis has shown a great deal of respect for the religious view. He also reveals himself to be a fan of the stories religions tell, because they can explain a good deal about ourselves. Most will think that this will be giving the stories too little credit, but as he repeatedly says in acknowledging how little certainty we have, it is good enough. His book is certainly good enough to benefit believers and nonbelievers alike.



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### Quote

*When someone is saved from certain death by a strange concatenation of circumstances, they say that’s a miracle. But of course, if someone is killed by a freak chain of events – the oil spilled just there, the safety fence broken just there – that must also be a miracle. Just because it’s not nice doesn’t mean it’s not miraculous.*

(Terry Pratchett, *Interesting Times*)

# Science with a Sense of Humour

Profound ideas told  
with wit and gusto

***The Science of Discworld*, Terry Pratchett, Ian Stewart and Jack Cohen. Rev. ed., London, Ebury Press, 2002.**

Ian Stewart is a Professor of Mathematics and Jack Cohen is a reproductive biologist. Terry Pratchett is the creator of the best-selling Discworld<sup>1</sup> series.

For those of you who came in late, Discworld exists on the very edge of reality, carried though space by four gigantic elephants which stand on the back of the Great A'Tuin, a star turtle. Like any fantasy world, (Tolkien's for instance) Discworld works according to its own rules. On Discworld, million to one chances turn up nine times out of ten, magic exists as a real force and so does *narrativium* – the power of story. Discworld has been described as both a 'world and a mirror of worlds' and this is how the writers of *The Science of Discworld* use it – as a device to help explain in layman's terms where our universe, our world and the life on it came from, what happened to it along the way and where it might be going.

The chapters of scientific explanation are set between chapters of a Discworld story which takes place within the walls of Unseen University. A magical experiment being run on the squash court ends up producing so much thaumic energy (the thaum is the smallest indivisible unit of magic) that Hex, the University's thinking machine, suggests to

the wizards that it might be an appropriate time to undertake the "Roundworld" project. A pocket universe is created<sup>2</sup>. Initially nothing exists within it, then the big bang happens, later on the solar system is formed, then our world (Roundworld). Eventually life turns up. Very late in the piece so do we but so briefly that the wizards don't even notice us as they are having tea at the time.

Now for an admission of bias! I am a great admirer of Terry Pratchett's work and will buy and read any book that has his name on the cover. I like his humour, his story-telling mastery, his creation of some remarkable and highly individual characters. I find a special resonance with his slant on what makes us what we are – what makes us human. What I am not is a scientist. I have tried (and failed) to come to terms with some popular scientific books by people like Stephen Hawking and Richard Dawkins.<sup>3</sup> Reading *The Science of Discworld* has helped me come to an understanding of at least some of the messages that science (as presented by Pratchett and friends) has to tell.

They argue the importance of science and the scientific method. We wouldn't be where we are today without it and we probably won't have much of a future if we abandon it. They argue that science doesn't know everything and is based on not knowing everything. But it does know some things.



Margaret Kittson is a teller of lies-to-children and might soon be turned into an orang utan who answers every question with "Oook". If you think that is insulting you haven't read Terry Pratchett.



They have some advice for the some of our latter day zealots like Greenpeace activists and one of their pet causes – global warming. While accepting the evidence that human activity has led to an increase in atmospheric carbon dioxide, it is only one factor out of five which influences how hot (or how cold) our planet is. The others are variations in the sun's output of radiant heat, the Earth's orbit, the composition of the atmosphere, the amount of dust produced by volcanoes, and levels of land and oceans resulting from movement of the Earth's crust. They give some unconventional advice:

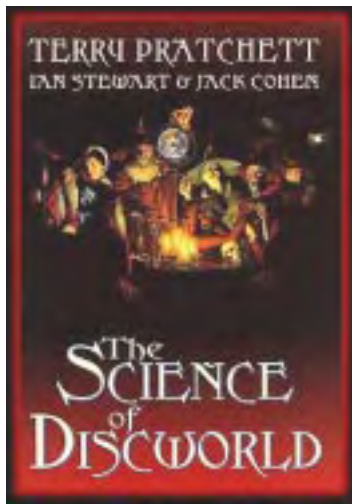
*... to reduce atmospheric carbon dioxide permanently, and not just cut short-term emissions, the best bet is to build up a big library at home, locking carbon into paper, or put plenty of asphalt on roads. These don't sound like green activities, but they are. You can cycle on the roads if it makes you feel better.*

This revised edition includes a couple of extra chapters dealing with the life (Running from Dinosaurs) and death (I Said, Don't Look Up) of the dinosaurs. Extinctions – some major, some not so major – have occurred on many occasions. The one at the K/T boundary which saw the end of the dinosaurs is not even in the same league as the much earlier Permian/Triassic extinction when 96% of all species died out. The authors comment that *“we remember the dinosaur one because they have such good PR people.”* In a more serious vein they add this cautionary note. Dinosaurs can be seen as the *“ultimate icon for an evolutionary fact which we generally ignore, and definitely find uncomfortable to think about: nearly all species that have ever existed are extinct.”*

Anyway, back to the story. Once things settle down a bit on Roundworld after its formation, the wizards call upon the newly appointed Professor of Cruel and Unusual Geography (and professional coward) Rincewind to investigate. Hex creates a 'virtually there' suit which allows Rincewind to gain a virtual

first hand experience of – pardon the pun – earth-shattering events like comet and/or asteroid strikes. He witnesses the development of life on earth from cyano-bacteria, to blobs (stromatolites), newts, etc. The occasional intelligent lifeform emerges for a while then disappears – usually catastrophically. A brief glimpse is offered of a crab civilization (The Great Leap Sideways). After all, as the authors say:

*Deep Time can hide a lot. If human-kind disappeared tomorrow, after a few million years the only trace of our existence might be a bit of space junk and some stuff on the moon.*



One of the final chapters of the book is entitled 'Ways to Leave Your Planet'. In it the authors return to an idea they outline earlier that the best way to do this is through the construction of a space elevator. They use the 'space elevator' concept in other contexts throughout the book. Biologically speaking being warm blooded, like mammals, rather than being cold blooded, like reptiles, is akin to a space elevator. While the initial investment in constructing a space elevator would be huge, once it is done it is cost neutral – what goes up is balanced and paid for by what comes down. They believe the method we have used so far – on top of what is essentially a giant firecracker – is rather inelegant as well as being costly and inefficient.

Rincewind and the wizards make one final visit to Roundworld. They discover that it is a snowball again.

They find no signs of intelligent life, but they do find plenty of evidence showing that there was intelligent life, that it built things, and that, like Elvis, it had not only left the building, but left the planet as well. Rincewind thinks this is a pretty good idea. As he says to the wizards...

*how can anything living on this world possibly mess it up? I mean, compared to what happens anyway?... If you pick the right time, yes, sure, it's a great world for a holiday, ten thousand years, even a few million if you're lucky with the weather, but, good grief, it's just not a serious proposition for anything long term. It's a great place to grow up on, but you wouldn't want to live here.*

The authors spend a lot of time discussing different processes (like evolution, chaos theory and emergence) and how they work. Education is the mechanism we use to pass what we have learned from one generation to the next and is itself a process. In its earliest stages it involves 'lies-to-children' – telling stories providing simple explanations<sup>4</sup> for complex processes. This prepares the ground for more complex concepts to be introduced later on. To this end, the authors describe themselves, rather tongue in cheek one would guess, as 'liars-to-readers'. Their strategy works. I thoroughly enjoyed reading both 'stories' – the Discworld one and the Roundworld one. More significantly, I feel that I understand a lot of things much better than I did before I read the book. This has to be a positive outcome.

## Notes

<sup>1</sup> At the expense of stating the obvious, Discworld is an imaginary world – the stories which take place there are works of fiction.

<sup>2</sup> About the size of a basketball.

<sup>3</sup> I've even had to admit defeat with some of the chapters in Ian Plimer's books. This is not for want of trying. Ian is one of my heroes, someone who I have described on previous occasions (in my best Sir Humphrey-speak) as a courageous man!

<sup>4</sup> One example they give is the comparison of the earth with a bar magnet. Strictly speaking this isn't true but it does help explain the Earth's magnetic field.



# Crop Fiction

## *Signs.*

In 1991, when Doug Bower and David Chorley admitted to creating 250 crop circles in England using planks suspended from two ropes, believers the world over must have collectively gone, “Bugger!” Crop circles, they had been certain, were proof of intelligent alien life trying to communicate with us. No human could possibly have done something as complex as crush stalks of corn in a circular shape. (You have to wonder, though, if the aliens were that intelligent, why they communicated with strange circular patterns, even if they were really ancient Sumerian symbols. Wouldn’t it have made more sense for them to write something simple in English, like “we come in peace” or “Earthlings are yum”?)



Helen Vnuk is an editor and member of the NSW Committee



Believers tried to discredit Bower and Chorley, saying they couldn’t possibly be responsible for all the crop circles. True. There were other hoaxers, and there may also be a meteorological explanation for some of them. But the point is, if two British pranksters had been able to create at least some circles that had fooled the “experts”, then the existence of crop circles couldn’t be taken as proof of intelligent alien life.

M. Night Shyamalan’s film *Signs* has pretty much missed the boat (or the spacecraft) on crop circles, but the director was only in his teens when the hysteria was at its height, so he wouldn’t have been able to sign Mel Gibson up to be in his movie back then. Early on in *Signs*, Shyamalan acknowledges the hoaxers by having one of the characters

explain that crop circles are created by “nerds who don’t have girlfriends” (Doug Bower would have walked out of the screening in a huff at this point). But, of course, he is proven to be very, very wrong.

*Signs* is the story of Rev Graham Hess (Mel Gibson) who loses his faith after his wife dies in a car accident. Graham, who lives on a farm with his two children Morgan (Macaulay Culkin’s younger brother Rory) and Bo (Abigail Breslin) and his brother Merrill (Joaquin Phoenix), wakes up one day to discover crop circles in his cornfield. Graham is sceptical, but his precocious asthmatic son Morgan is convinced it’s the work of aliens. Dogs bark furiously and wind chimes jangle wildly to let the audience know they should start being very afraid.

The precocious asthmatic son is right. Crop circles start appearing in cornfields worldwide, and soon fleets of alien spacecraft, using the circles for guidance, position themselves above the world’s major cities. (Minor plot flaw: not too many cornfields near the centre of Beijing.)

The movie then turns into a standard Hollywood thriller where the good guys are hunted down and cornered by the bad guys (aliens, zombies, Russians, whatever) and have to fight for their lives. Three bits of advice for good guys caught in these situations: firstly, when someone tells you “There’s an alien/zombie/Russian in there – don’t go near it,” you shouldn’t go near it; secondly, when you think all the aliens/zom-

bies/Russians are gone, there will always be one left; and thirdly, any time you look into a reflective surface, you will catch sight of an alien/zombie/Russian standing behind you.

Without wanting to spoil the plot, these are particularly piss-weak aliens, who can be felled by a good swing from a baseball bat.

So what does all this prove? During the movie, Mel Gibson's character poses the question, "Is it possible there are no coincidences?" By the end he's found the answer. There are no coincidences. Everything happens for a purpose. Even his son's asthma was meant to be. And so he goes back to the Church. Personally, I don't think proof of the existence of intelligent life on other planets would strengthen my belief in a Christian god, but I can see why Gibson (a devout Catholic who still attends Latin masses) would have loved that part of the script.

*Signs* manages to capitalise on Americans' fascination with the supernatural, and yet reinforce their faith in both Christianity and baseball. Understandably, it's been a hit.

Now for the big question: is the movie entertaining? Research showed that 66.6667% of Australian Skeptics thought so. Richard Saunders and Ian Bryce shivered at the scary moments and laughed at the jokes – I just wished the aliens would catch and eat Macaulay Culkin's younger brother. We agreed, though, that it wasn't as good as Shyamalan's earlier film *The Sixth Sense*. Basically, *Signs* is a shallow exploration of a mish-mash of spiritual beliefs that sends some conflicting messages, but it's also a bit of harmless fun.

That's Hollywood for you.

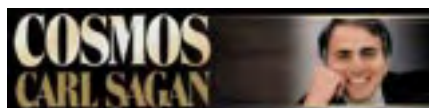


#### Quote

*All tribal myths are true, for a certain value of "true".*

*The Last Continent*, Terry Pratchett.

# Cosmos Revisited



***Cosmos: Collector's Edition*, DVD and VHS (NTSC), Cosmos Studios. Available from [www.carlsagan.com](http://www.carlsagan.com) and [www.amazon.com](http://www.amazon.com) US\$169.95**

The DVD features:

- Subtitles in French, Italian, German, Spanish, Mandarin, Japanese, and English for the hearing impaired
- Science updates on subtitle track
- New introduction by series co-writer Ann Druyan
- Brief scientific updates by Carl Sagan made 10 years later.

From time to time, and I suspect this will happen a lot more from now on, people ask me why I became a Skeptic and why I have such an interest in science. There are many reasons, some of which I don't even know, but one stands out like, shall I say, "a candle in the dark". When I was 15 years old, *Cosmos* was on TV and watching it was the highlight of my week. Imagine my delight after 22 years in seeing all 13 episodes again from the newly compiled DVD box set. In fact I managed to see the lot in less than 5 days!

To remind you, the episodes are:

- The Shores Of the Cosmos;
- One Voice In the Cosmic Fugue;
- The Harmony Of the Worlds;



Richard Saunders

Heaven and Hell;  
Blues For A Red Planet;  
Travelers' Tales;  
The Backbone of Night;  
Travels In Space and Time;  
The Lives Of the Stars;  
The Edge Of Forever;  
The Persistence Of Memory;  
Encyclopedia Galactica; and  
Who Speaks For Earth?

It's amazing to think that the act of putting these shows on DVD was also a rescue effort, as the originals were in poor condition and some parts even missing! However, the producers raced all over the USA and found a bit of the show here and a bit there, slowly piecing together the whole series.

So much of what Carl Sagan said in 1980 is still valid today, but not all. Where our thinking on certain matters has changed, the science updates on subtitle track keep us up to date. This also serves to point out when Sagan's scientific predictions have come true and where he was

wrong.

*Cosmos* on DVD is one of those 'must haves' and surely no library is complete without it. I recommend it to all, with a special recommendation to the young. I hope it inspires you as it did, and still does, me.



# Reviews in Brief

## Chances are

***What are the Chances? Voodoo Deaths, Office Gossip and Other Adventures in Probability;* Bart K Holland, Johns Hopkins University Press 2002; 141 pp., US\$24.95 (hardcover)**

From page 1, featuring the bubonic plague as an example of germ warfare, to the last page where a distinguished Australian gets a guernsey, this charming book blends statistical instruction on life's uncertainties with some unique data such as the number of soldiers in the Prussian cavalry kicked to death by horses!

There is some great stuff for skeptics. The section on miracles demonstrates the influence of random coincidences. Claimed proof of psychic powers relies on failure to accept or recognise contrary examples. Hexes are all in the mind. And so on, with amusing anecdotes making for light reading.

Astrology gets a splendid rubbishing. Dr Holland notes that scepticism towards astrology is nothing new. He cites the Roman Senator Cicero asking "Did all the Romans who fell at (the battle of) Cannae have the same horoscope? Yet all had one and the same end." It was a nice demonstration that horoscopes have no predictive value.

Stock markets come in for plenty of flack. Share buyers beware. This age of instant communication tends to equalise investors' judgements and as a result it is the random fluctuations that often determine outcomes unless there is knowledge not known to all. That is why insider trading is a crime. So with the general run of shares there are about as many losers as winners, as many

investors have discovered the hard way.

Underlying all these diverse examples is the theory of statistics. Gaussian and Poissonian statistics are gently introduced and the relation between them is made clear by well-chosen examples.

*What Are the Chances?* is an enjoyable read. And painlessly instructive as well. It might be a problem obtaining a copy in this country, but I can recommend Amazon for on-line purchasing at the best price.

*Colin Keay*

## Myths

***Myths of Modern Religion,* Steve Cooper; Booklet 2002. 47pp. pbk.**

This New Zealand writer, author of *Origins of the Christian Faith*, discounts another area of religious belief. He shows how so much of the early history of Judaism, as claimed in the first two books of the Bible, Genesis and Exodus, is not their history but relates to much earlier folk lore. For example, there are parallels to Noah's Ark and the great flood written by Sumerians on their cuneiform tablets about 2400 BC. Another myth is the Jewish flight from Egypt – the Exodus. There is no archaeological evidence that the Jewish nation ever was held in slavery or lived in Egypt nor Egyptian records of any pharaoh's army drowning in the Red Sea. It is apparent that much of such myths were

absorbed by the Jews when enslaved in Babylon 586 to 538 BC and transposed to become their mythical history.

Cooper points out the many myths in the other books of the Old Testament: Joshua ordering the sun to stand still until he had finished killing his enemies; Jonah living for three days in the belly of a fish and be vomited alive on a beach; Daniel's three friends being cast into a fiery furnace and coming out alive without any hair being singed, are examples.

Then there are the myths of the New Testament. The four writers of the gospels had no contact with Jesus, their accounts being decades after his death. Mark, the first gospel to be written, does not claim divinity for Jesus. Jesus himself is probably a myth, there being no written record of his existence, notwithstanding the Romans kept very good records. Christian Bishop Eusebius in the fourth century AD, to overcome this lack, produced a spurious version of the Jewish historian, Josephus' history which included a paragraph about Jesus. Cooper quotes Professor Ian Plimer as a summation: "There is such an overwhelming volume of verifiable information ... to show that Christianity is another superstition clinging onto myths stolen from other cultures".

I recommend this booklet as a handy reference to back up any discussion on the place of myths in religious belief.

Available from James Gerrand, 138B Princess Street KEW VIC 3101 for \$6 including postage.

*James Gerrand*

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# Forum

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## Enviro-Skeptic

I recently had the opportunity to get hold of the much reviled, and also much praised, book *The Skeptical Environmentalist*, by Bjorn Lomborg, the Danish political scientist and statistician (Reviewed by Ian Plimer in an earlier issue of this august journal [22:1]). Curiously, although published last year, it was not available in the bookshops in my remote part of the planet (Canberra) until mid-2002.

### Skeptic, Rationalist, Empiricist

There are at least two ways of defining a “skeptic”: as [1] someone who insists on having good evidence before she will believe a proposition, and/or as [2] someone who actively combats superstition and quackery, delusions and illusions, especially those which lead to “fools soon being separated from their money”.

Lomborg is mainly a skeptic in the first sense. Much money may be wasted on solutions to false or trivial environmental problems, but Greens are not quacks. Alas, they are all too sincere, and (mostly) honest, albeit often badly informed!

Lomborg could be called a “rationalist” environmentalist, except that the term ‘rationalist’ always has the flavour of the fanatical village atheist scoffing at miracles. An even better tag would be “empiricist”: doubting first, then going out to look, whether it be in the jungle or in a science journal.

This is where too many environmentalists fail. They believe before they have looked.

### The Sociology of Ignorance

Lomborg’s major target is the exaggeration and distortion surrounding global warming. This particular ‘scare’ is hard to assess because the issues and their solution (or mitigation) all turn upon the credibility of complex computer modelling (which he neatly summarises).

He also sorts fact from fiction in relation to such topics as living standards; work and leisure; cancer; bio-diversity and extinction rates; the ozone hole; world hunger; pesticides and water pollution; even sperm counts among “organic” farmers and “chemical” farmers (he finds no significant difference). There is no big issue that is not covered either briefly or at length in *The Skeptical Environmentalist*.

Unlike most environmentalists (especially the *non-skeptical* ones), Lomborg displays a good understanding of basic economics. For example, the importance of prices as signals co-ordinating supply and demand, and the dynamic nature of “scarcity”: the rising value of substitutes and near-substitutes, and the incentive to recycle, as the price of any one resource increases.

His work is all the more valuable because he goes beyond the simple weighing up the evidence for and against a particular proposition such as “acid rain is destroying the remaining forests of Europe”. At the start and end of each section of the book, Lomborg seeks to place the facts into their political and economic context. These sections consti-

tute mini-essays in the sociology of knowledge, or, more to the point: the sociology of ignorance.

His conclusions can be summarised under five headings:

#### 1. **The crowding out of good news:**

Of its very nature, the media concentrates on negative stories. This would be so even if the majority of journalists weren’t left-leaning. The inevitable but unfortunate result is that good news is lost sight of. For example, the Thames, the Rhine and New York Harbour are nowadays cleaner than at any time since 1600 – but this is a long term trend. The media prefers immediate stories such as the case of (transitory) poisoning of fish in the Danube River some years ago.

2. **“Never Had it So Good”:** Life is better for nearly everyone than it was 25, 50 and 100 years ago, and things are getting better. People are healthier. The environment is healthier. The evidence for this conclusion is presented at length in *The Skeptical Environmentalist*.

#### 3. **The bogeyman goes, the fear remains:**

Many environmental “scares” disappear after five or 10 years. They arrive with a bang and depart with a whimper. A good example is acid rain, which even rational people initially feared might damage the forests of northern Europe – I myself was one of these. Unfortunately the media did not prominently report, when the evidence soon emerged, that acid rain does not damage trees.

4. **Manageable problems:** Most environmental scares are either not problems at all or small problems that we can readily manage. The

really difficult question is political: which problems should we treat first, and how much should we spend? The answer can only come from the democratic process. And here Lomborg rightly makes good use of the concept of “opportunity cost”: the more we spend on environmental problems the less we can spend on other problems (unless we wish to see taxes massively hiked).

### 5. Trade, not carbon controls:

The sources of “humanitarian disasters”, to use the current cant phrase, are not environmental. They have political and managerial causes, notably in sub-Saharan Africa. We would do better, he says, to promote global trade and political and administrative reform in the Third World. (Lomborg also mentions aid, suggesting that he is not closely familiar with the writings of another outstanding skeptic, Peter Bauer.)

He acknowledges that there are some real, well-evidenced problems. But he also shows they are not doomsday problems. Such problems include global warming itself, genetically modified foods, and malnutrition.

Global warming, first of all, looks to be real (even if human activity may be one of the lesser causes). It will cause the world’s ocean waters to expand, resulting in a rise in sea-level of probably at least 30 cm by AD 2100 (page 264, citing revised UN data). Lomborg accepts that because of the uneven placement of the continents, and the uneven distribution of money and technology among them, the net effect on world agriculture of the rising temperature may well be mildly negative. But, as he explains, this does not mean lower agricultural output, only less than otherwise, without the warming. Absolute agricultural output will be immensely larger by 2100. And, just as we coped with a small rise in sea level during the long course of the 20<sup>th</sup> Century, so we can cope with a small rise in the 21<sup>st</sup>.

Regarding genetically modified foods, Lomborg proposes that we should not outlaw the gene technol-

ogy itself but instead deal with each new product on its merits. Most GM foods can be expected to bring massive benefits – safer, cheaper, more flavoursome etc. There will be some products that may cause (manageable) problems, such as the possible transfer of antibiotic resistance from GM foods to human pathogens in the gut, or the transfer of pesticide resistance to weeds. Careful testing and regulation are the solution, not banning all GM foods.

Finally, malnutrition. This remains a large absolute problem, although not an immense problem in relative terms. Sub-Saharan Africa has stagnated, and there are large pockets of poorly nourished people in other regions. But, as I have said, this has its roots in political economy. The physical environment is largely irrelevant. (Interestingly, we find that the UN uses the word “starving” not to describe people who are about to die, but those who do not get enough nourishment for them to do heavy physical work. One is reminded of a similar misuse of “homeless” in Australia.)

### Knaves and Fools

One quickly sees, from what Lomborg says about the evidence, that certain famous environmentalists are either knaves or fools. These are not words he employs; Lomborg himself is entirely restrained. His worst rebukes are very gentle, such as “it is therefore somewhat surprising to see Paul Erlich saying that [pigs can fly]”. He always expresses his disagreement respectfully: the criticism is never *ad hominem*.

The weight of the evidence that he marshals falls particularly hard on the heads of the World Wildlife Fund and Lester Brown of the Worldwatch (now Earth Policy) Institute – and rightly so. The WWF has made many deeply foolish pronouncements, “two thirds of the world’s forests lost forever” being just one. Lester Brown plainly has trimmed the evidence to meet his preconceptions, notably concerning supposed limits to increasing crop yields.

### “Something New Every Day”

I was already generally familiar with much of the ground that *The Skeptical Environmentalist* traverses, especially the historical perspectives. (Anyone who doubts the idea of progress ought to read more about dirt and disease in 18th century Britain, the world’s most developed country at that time.)

Nevertheless ‘one learns something new every day’. And for my part, I did not know that:

1. When one controls for age-related effects, there has been effectively no change in the incidence of breast cancer;
2. The ozone hole has already begun to fix itself, and will be closed in about 50 years. Even if it had persisted, the number of extra skin cancers would have been negligible;
3. Shale oil deposits are immense and would easily suffice to cover our energy needs for at least the next century. This is hypothetical, as liquid oil is plentiful and not in short supply; and
4. The world’s largest oil “spill” had effectively zero impact. Saddam Hussein decided, at the start of the Gulf War, to let “his” oil pour into the Persian/Arabian Gulf. Most of the deleterious impact was gone just months later.

Indeed much of the evidence Lomborg pulls together goes to proving the robustness of the environment. He establishes the exact opposite of the supposed “fragility” that the sentimentalists among our ‘green’ sisters and brothers like to harp upon.

### The Short Run and the Long Run

*The Skeptical Environmentalist* is a first-class piece work but not quite perfect.

Lomborg jumps between time-horizons. He treats some issues only in terms of the last decade. Others are dealt with over the preceding century, and others again over a longer period. Partly of course this is dictated by available statistics. Ther-

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ometers for example were not invented until the 1600s, so we don't have temperature measurements for most of recorded history (although there are proxies: air bubbles in antarctic ice cores, tree-rings, and so on).

I felt at times that Lomborg had chosen the time-scale that best fitted his general thesis. Certainly he passes over some rather embarrassing examples, from before 1900, of the extravagant things that humans can do. Examples: the near-extinction of the North American bison; the over-hunting of various species of whales; and the long-scale impact of humankind on the Brazilian/Amazonian rainforest.

Lomborg does deal with the over-harvesting of fish and the recent status of the Brazilian forests, but he ignores bison and whales. (This is not necessarily wrong; there is a limit to what one can deal with even in a big book.)

Bison-hunting and whale hunting are interesting because, contrary to what some environmentalists believe, they show that the 19<sup>th</sup> Century was a more destructive period than the 20<sup>th</sup> Century. Lomborg offers a good discussion of overall extinction rates (insects and other invertebrates as well as mammals and birds) but he focuses on insects and birds.

Lomborg would probably retort that bison and whales were not driven to extinction, and the impact of European colonisation is best examined by looking at all flora and all fauna. He would probably add that their fate illustrates the "tragedy of the commons": where ownership is lacking, everyone is free to exploit "free" resources to the point where they are exhausted or nearly exhausted.

In dealing with the Brazilian forest, Lomborg simply mentions in passing the major impact of the Portuguese colonists and their African slaves during the 19<sup>th</sup> Century. He prefers to deal with the 20<sup>th</sup> Century, and is able to show that the loss of rainforest during the 1900s was not dramatic. Unfortunately this mini-

mises the longer term "colonial" impact on uncultivated "indigenous" Amazonia.

These quibbles aside, the book is magnificent. I would recommend it to all Skeptics as an invaluable ready-reference kit to be carried in one's knapsack when venturing out into the green wildernesses of Balmain, Fitzroy and Indooroopilly (with apologies of course to all sensible evidence-seekers who also flourish in those, no doubt robust, habitats).

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## Creationist Clippings in the Barber Shop

A few months ago I noticed several copies of a tabloid called *Challenge* lying on a bench at a nearby school. The paper was clearly aimed at young people and contained articles such as you would expect to find in the 'youth' section of a church newspaper, including a children's Bible quiz.

I was about to put the paper down when I noticed a column entitled 'Science Spot' and the heading 'Mere months to make an island'. Immediately suspecting the worst I looked for a source. No doubt you're way ahead of me:

*Adapted from an article by Dr Edgar Andrews from [www.AnswersinGenesis.com](http://www.AnswersinGenesis.com), publishers of Creation Family Magazine.*

The article itself was rather moderate, by creationist standards, and was basically trying to cast doubt on modern scientific dating methods. Thinking that it might have been a 'one-off', hidden away in the back pages by an editor desperate for copy, I cut and filed the item and thought no more about it.

### References:

P T Bauer, *Equality, the Third World and Economic Delusion*, Harvard University Press 1983.

P T Bauer, *Reality and Rhetoric: Studies in Economic Development*, Harvard University Press 1986.

Bjorn Lomborg, *The Skeptical Environmentalist: Measuring the Real State of the World*, Cambridge University Press 2001.

*Michael O'Rourke is a public servant and a Committee member of the Canberra Skeptics*

That is, until last week, when I was awaiting my turn at the barber's. Lying on top of the old *Reader's Digests* and local rags were four freshly printed copies of *Challenge*. With mounting concern I leafed through articles on sudden conversions to Christianity and the awfulness of drugs and illicit sex until I came across, not one but two, large creationist items.

'Science Spot' for this month (June 2002) had been written by David Catchpoole, presumably the same Dr David Catchpoole who appears on *Creation* magazine's list of consultants/researchers etc. The creationist content of this column was much more up-front than the earlier piece I had read. Coelacanths and other 'living fossils' posed great problems for evolutionary theory. Why had they not evolved further over the claimed millions of years that they had existed on earth? Catchpoole's answer:

*To Christians ... there should be no mystery about these so-called 'living fossils'. We have an eyewitness account (God's Word) of how these creatures were created to be fruitful*

and multiply after their kind. So the fact that modern creatures have 'stayed the same' as their fossilised ancestors is no surprise at all. (And we also know from the Bible that they were created thousands, not millions, of years ago.)

Now, Niles Eldredge or Colin Groves or any competent science teacher could drive a school of coelacanths through this sort of half-baked propaganda any time they liked, but unfortunately they are unlikely to be present while a student is reading *Challenge*. As this topic is out of my field it took me several minutes on the Net to identify effective counters to this line of creationist argument. Would young students have the time or inclination to engage in this necessary research? It seems most unfair of AiG writers to retail such polemical information under the misleading heading 'Science Spot'.

But worse was to come. In an article called 'Unproven and Unprovable', taken from his book *How to Make an Atheist Backslide*, Ray Comfort favoured his readers with the following:

*The theory of evolution would have us believe that God didn't make the giraffe with a long neck. Instead, it evolved its extended neck to reach the leaves on tall trees ... The father giraffe stretched to reach leaves, and when his wife had offspring, the stretch genes were passed onto the next giraffe generation, and they were therefore born with longer necks.*

'Stretch genes'?? Looks like Lamarckianism, doesn't it? When was the last time this was taught in a science classroom? And even granting Comfort's exploded premise, why do the imaginary genes need to pass to the offspring via the father? Wasn't his 'wife' stretching too?

Comfort continues in this vein:

*Let me then project where evolution should take the still evolving species of modern man. Since the evolution of modern man, he has used a spoon to eat his food. If he continues to do so, evolution will do its marvellous work. Mankind, in approximately fifty million years, will have a 'spoon' evolve (grow) from his right hand (if he is right-handed). This will happen because spoon genes will be passed down from generation*

*to generation. The spoon hand extension will make it difficult for him to brush his teeth, but evolution will no doubt solve the problem.*

If your jaw is not hanging down around your ankles by now, you will never be appalled by anything. There is something truly breathtaking, even awe-inspiring about a paragraph such as this one. What can one say about the mind that produced it?

In conclusion, if you should see a copy of *Challenge* lying around somewhere, do have a look through it. According to its Western Australian publishers, the Challenge Literature Fellowship, theirs is a newspaper 'designed to help every Christian share his or her faith on a regular basis'. As well as putting in a bulk order, you might like to shell out \$50 for your own news stand and sell from there 'in your local shopping centre, the local fish-and-chips shop, caravan park, hotel, railway station [or] doctor/dentist surgery'.

Or maybe your school or barber shop.

Brian Baxter is a Melbourne freelance writer



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\* A purely rhetorical question



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# Letters

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## Thanks from a Winner

Rob Morrison  
Adelaide University

I am most grateful to the Australian Skeptics, not just because I was fortunate enough to win their Eureka Prize this year, but because the very existence of such a Prize brings into prominence some issues that are fundamental in science.

Winning any Eureka Prize would be wonderful, and many of the awards acknowledge expertise in methodology, related fields of study, student achievement, publishing and so on. These are all extremely important aspects of our discipline, but skepticism lies close to the heart of scientific enquiry, and it seems to me an especially valuable area to promote.

I am grateful, too, that the Skeptics Prize changes its focus from time to time. I was able to submit my entry this year because the Australian Skeptics have acknowledged that the new, but growing, field of science communication should, like science itself, adopt a skeptical attitude to exaggerated and sometimes inaccurate scientific claims, and the conditions of entry for the Prize now embrace such fields.

I know that the Prize has attracted much attention in the past. The same is true this year, and since that interest is combined with an interest in the Australian Skeptics themselves, the Prize continues to be an effective ambassador for your organisation and the important principles which it advances.

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## Public lies

Jackie French  
Braidwood NSW

Help! I'm being accused of believing in life everlasting... (While I would like to sue the Bishop of Brisbane when I die and fail to find the angel's wings and harps he promised me, circa 1960, I have a feeling it may be impractical.)

Tony Jurgenson (Winter 2002) has missed the point of my 'public lie' proposal. A 'public lie' would not cover someone who sincerely believed what they were proposing: we're all entitled

to our favourite delusions, and the world would be a lot poorer if only propositions that had been proved or were provable could be promulgated.

But it would cover someone who had evidence that what they were proposing was false ie, the sincere Bishop would not be sued; the faith healer who knowingly manipulated the congregation, or the politician promising what he knew to be unfeasible, would be. The former could not be proved; the last two could be, and there would be at last some legislation that would cover the wide range of deceptions not covered by the Trade Practices Act.

## Omniscience and Free Will.

Bill Moriarty,  
St Leonards, Vic.

Blair Alldis, in his letter in *the Skeptic* (22:2 p.85), indicated that he did not agree with the Australian Skeptics' policy of not challenging religious beliefs such as the existence of God. Personally, I do agree with this policy, but I feel that his claim to have proved that the omniscience of God and the existence of free will are logically incompatible should not go unchallenged. It seems to me that he has fallen victim to the fallacy of imagining God as a being existing in time, that is "immersed" in time, restricted to the same time frame as we are. If God is the overall creator he created space-time, through the Big Bang or otherwise, so he cannot be "in" space-time, in the sense of being bounded by space or time. This point was made by St Augustine of Hippo in the fourth century, and recently cited by Stephen Hawking (*A Brief History of Time*, Bantam Books, Bantam edition, 1989, pp. 9, 176).

An argument which is similar to Blair's, but without introducing God, may be put in the following way. In the course of time a definite "future history" will be revealed. If any of the decisions occurring in this future history had been made differently, it would not have eventuated. Therefore the decisions all have to be made in a particular way, that is, they are not freely made.

This argument gets its persuasive power from a failure to distinguish between the many future histories which, from the human perspective, are possible at a particular time, and the single future history which will eventually unravel.

Returning to Blair's argument, suppose Blair's decision to take path A or path B had to be made at time T. Then God could, in a manner of speaking, "skip ahead" to a time after T to find out what the decision was, and then "skip back" to the present, or any other time, without ever passing through the time T. This would not affect Blair's freedom to choose at time T. Or, to use a slightly different metaphor, we may note that it makes some sense to say that, for God, the past, the present, and the future are all present. So God could "look at" the future after time T to see what Blair's decision was, and then "look at" time T to watch Blair make his decision freely.

These comments do not, of course, prove anything about God or the way he operates, but I think they do disprove Blair's claim to have proved a logical contradiction.

### More Free Will

*Stephen Garner*  
Castle Cove NSW

Blair Alldis (22:2 p. 65) offers a proof that "The Omniscience of God and the existence of Free Will are logically incompatible". More particularly he argues that a God that knows the future and the existence of Free Will are logically incompatible. If he is correct, then the important question is whether or not we have Free Will. If we do have Free Will and he is correct then we can prove that God is not Omniscient.

I have been trying to think of an experiment that would prove (or even demonstrate) that we have Free Will. I have been unsuccessful. Can anyone help?

Using Blair Alldis's argument we can show that time travel from the future to the present and the existence of Free Will are logically incompatible. In fact the moving of information, not necessarily objects, from the future to the present and the existence of Free Will are logically incompatible. So a demonstration of Free Will, according to the proof, would show that time

travel from the Future to the present is possible. Conversely if information or objects can travel from the future to the present then we do not have Free Will.

I recall reading that some fundamental particles appear to travel backwards in time. If this is so, then we don't have Free Will. Is my recollection correct? Do such particles exist? Are there any physicists out there that can assist me?

### Politics

*Antony B. Blake*  
Bomaderry NSW

Regarding Bob Holderness-Roddam's letter on US foreign policy in the Autumn 2002 issue, I'm inclined to agree with you that comments on political matters don't really belong in *the Skeptic*. But the letter was a reply to remarks in your editorial, and I thought it at least tried to offer some pointers towards a "critical understanding of complex issues"

Furthermore, while *Green Left Weekly* may not always be 100% objective, the items quoted from it, being the outcomes of court cases, are capable of being checked as factual. Your comparison with *Creation ex Nihilo* seems a bit tendentious.

And anyway, if this is the policy, how come you accepted Colin Keay's article "Reds Under the Bed After All" in the same issue? Don't you think this was at least as politically slanted? If not, why not?

PS Notwithstanding the above, I think you and the Editorial team do a fantastic job, and Australian Skeptics are fortunate to have such an excellent journal.

*While we don't mind a bit of politics cropping up among the articles, the thought of the Skeptic turning into a political journal is the sort of thing that keeps editors awake at night.*

*I might have been a bit harsh about GLW, but really I was only commenting on its objectivity, however I doubt if even its publishers would claim it was objective.* **ED**

### Giving tongue

*D C Boote*  
Braddon ACT

I couldn't help but be amused by a segment at the end of Mark Newbrook's article "Words of Confusion" (22:2) about the practise of "frenectomisation" being practiced by South Korean yuppies on their little kids, in the mistaken belief that this will enable them to master words with 'l' and 'r' in them.

I agree with those authorities who say that any difficulties Asians have with these words are manifestations of a cultural phenomenon and not the result of physical problems. If one wants proof, all one has to do is listen to individuals of Asian descent born in countries where English is the dominant language. These individuals have little or no trouble wrapping their tongues around such words and their voices are no different from those from any other ethnic origin who grow up in the particular country.

In my opinion, "frenectomisation" is just another piece of quackery like feng shui. Hopefully, though, it's just a fad and a short-lived one at that.

### Absolute Truth?

*James Gerrard*  
Kew VIC

Mark Newbrook (22:2, p 65) disputes my scientifically based "conclusion that morals are not absolute truths but are what are accepted by the community as being for the best in the current state of their society." (22:1, p 45)

He claims that "the more fundamental question of whether and in what sense such ethical truths exist at all, are outside the domain of science."

Scientists and Skeptics deny there is any realm outside the scrutiny of science and ask where is the evidence for any ethical truths that are not established by society?

In the last half century we have seen how the moral views of society in such areas as prostitution, homosexuality, sex education, voluntary eutha-

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nasia, drug use, have changed. Mark Newbrook's philosophic approach is out of date.

Influential philosopher Ludwig Wittgenstein's many years ago concluded that philosophy reduces to discussing the meaning of words rather than establishing any truths. The philosophic approach is made more difficult when esoteric words are used.

Mark Newbrook's linguistic background probably fuels this esotericism: I had difficulty with understanding his words "metaethics" and "scientific", neither being in my *OED*.

### The eyes have it

*P L Riley  
Blacksmiths NSW*

In a part of Richard Saunders' article "Ready for Battle" (22:2 p.35) he uses a description of the iris to prove iridology a pseudo science.

I remember the time when the medical profession thought that constipation was caused by a lazy bowel and the cure was a fibre (called 'roughage' in those days) free diet and laxative tablets. It would not be fair to call the medical profession a pseudo-science on that alone although the practice did give rise to some embarrassing accidents.

Many years ago I studied iridology just for fun. It was my party piece and I used it to 'read' my family. One morning on the way to a hospital where she worked, my daughter stepped into a water-filled pot hole during a rain storm and hurt her ankle. The registrar examined the ankle and diagnosed a sprain. No X ray was taken. I looked in her eyes and saw a mark that indicated a small break, that wasn't there before the accident when compared to my previous notes and drawings. Today, 20 years later, my daughter has a slightly deformed foot.

Visiting a friend I was introduced to his family. One elderly person, who walked with the aid of a walking stick, asked me to look in her eyes. In her brown eyes were indications in the lung area, so well defined and shaped as in the Jenson chart it was uncanny. I asked her if she had any trouble with

her lungs and she said 'yes A few days later whilst taking to my friend I brought up the question of the lungs. It appeared that the woman had had tuberculosis as a child, which explained the walking stick.

Because of my empirical experience with iridology (I do not claim proof that it works) I shall have to have more evidence of its complete rubbish than the mere description of an iris.

Perhaps someone could review the book *The Fundamental Basis of Iris Diagnosis*, by Theodore Kriege. Publ. by L.N. Fowler and Co Ltd Essex U.K.

Until then, I shall sit on the fence. Is that skeptical enough, Richard?

I must congratulate the skeptics on a great magazine. I've only had two to date and I find them a wonderful stimulus to clear thinking.

### Fraught date

*Don Taylor  
Mount Stuart TAS*

What an opportunity was missed during the planetary alignment last May! Such events are often used by the doomsayers to predict yet another End of the World, but in this case they could have used the following rather convincing argument.

According to our friend Bishop Ussher, the world began in 4004BC, more exactly 22/10/4004. Divide by two and we get 11/05/2002 which is roughly when the alignment occurred.

Nothing has happened yet of course, but it might.

### Are you Positive?

*Mark Newbrook  
Monash University*

The Logical Positivists were wrong, as their spokesman Ayer later admitted. Their own basic proposition, accurately summarised by Bakker (22:2, p 61), is itself not empirical, not tautologous and not meaningless. This is only one of the major points which show that Bakker's dismissal of philosophy is unwarranted.

### The Future

*Alexander Cranford*

I heard the interview on ABC Local Radio last week. Barry Williams mentioned a book from a second hand book shop, written in the 1950s, about technology in fifty years time and how it was completely wrong.

I remember back in 1990 in the *Australian Post* magazine Tom Wards prediction of the life in Australia in the next ten years. He could have not been more wrong if he tried. I think I have seen Tom Wards name come up before now on this web site.

Perhaps you could do a page on future predictions that turned out to be all wrong. I would be interested to see some of the book of future technology written in the 1950s.

### Editor Responds

Thanks for the suggestion Alexander.

The book to which I referred in that broadcast was *Science News 7*, published by Penguin Books in 1948. I had picked it up in a second hand bookshop in the Blue Mountains, and, as yet, I haven't found the time to read it all, though some of the chapter headings might give the flavour.

One that struck me immediately was "Approaching the Speed of Sound" which looked at the theoretical problems associated with flying aircraft at and above that speed. Also of interest are chapters entitled "Mathematical Instruments and Calculating Machines" and "Modern Applications of Photography". I will ask some of our experts to critique those and will publish their conclusions in future issues.

As to your other suggestion, if any readers have documented cases of predictions made about the future, later shown to be wrong, whether by legitimate commentators or by mystics, we would be delighted to publish them.



# Branch Notes

The Tasmanian Skeptics have been stirring up lots of intellectual ferment lately. Well, Dr Bryan Walpole has at least been so, as he is still the Brewmaster for the parched expeditioners on Macquarie Island. Bryan also continues in his other lesser roles of Medical Officer and Flag Monitor.

The Tasmanian Skeptics will be holding a meeting in early September. This will be a dinner meeting at which Fred Thornett, our peripatetic Secretary, will tell us tales of his year of skepticism in Russia in 2000 and 2001. Some of you may have heard some of these on the ABC as it broadcast, on local and national stations earlier this year, a series of 15 short interviews between Annie Warburton and Fred.

Fred's tales, however, will be upstaged, however, by the "Great Barry Williams Visitation". Barry has consented cancel his planned interview with the Pope so that he can come and have a chat with the Tasmanian Skeptics in the week before the National Conference in Melbourne in November.

For full details of these functions please contact **Fred Thornett on 03 6234 4731**.

## Plug

The Tasmanian Skeptics are pleased to announce that their popular line of authentic looking "Master of Skepticism Testamurs" are once again available to intellectuals with the relevant ability – to wit: the ability to send us a cheque for \$24. Each indi-

vidually numbered testamur bears the name of the subscriber and has all manner of wondrous attributes including full colour, several genuine Latin words and lots of impressively archaic phraseology impressed upon a parchment-like ink receiving substrate.

Full details can be discovered by writing to [fredthornett@iprimus.com.au](mailto:fredthornett@iprimus.com.au)

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## Changes at the Top

Both the NSW and Victorian Skeptics Committees underwent some changes in the executive office bearers at recent AGMs.

In NSW, long-serving President, Richard Gordon, and Secretary, Alynda Brown chose not to seek re-election and we thank them most sincerely for their devoted service. Both remain as active committee members.

The Vic Committee also saw a number of changes and we congratulate the new officers and wish them well for the future.

### NSW Committee

#### Office Bearers

President: Richard Saunders  
Vice-Presidents: Peter Bowditch  
Martin Hadley  
Secretary: Martin Hadley  
Treasurer: Richard Lead  
Executive Officer: Barry Williams

### Victorian Committee

#### Office Bearers

President: Bob Nixon  
Vice-President: Steve Roberts  
Secretary: Ken Greatorex  
Treasurer: Rosemary Sceats  
Public Officer: Kathy Butler  
Minutes Sec: Andrew Rawlings

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## Please note that we have no Crossword in this issue,

much to the distress of the 1% of our readers who regularly enter (not to mention the weird bods who devise it). This failure was caused by a strange, newly discovered, incompatibility between the computer programmes of the compiler and this journal. We hope to have solved this dilemma before the next issue and will make amends by offering as a prize a copy of:

### **The Great Skeptic CD**

The winner off Crossword No 15, and a book by Richard Dawkins, is Jonathan Davies of Lilydale Vic.

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Visit Melbourne during the Spring Racing Carnival and attend the:

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**Local Keynote Speaker:**

**Professor Alan Trounson**, Director of the new National Centre of Excellence for Stem Cells and Tissue Repair at Monash University. Hear about the latest developments in this exciting leading edge medical technology.

**And:**

**The Rev Tim Costello:** The impact of gambling in Australia

**Dr Valerie Yule** (psychologist): The psychology of gambling

**Paul Rylance:** Gamblers' superstitions and gamblers' reality; casinos around the world

**Andrew Scott:** Beating them at their own game (Andrew runs his own blackjack school)

**Dr Paul Willis** (ABC Science Unit): How to fool a creationist...with a roast chook .

**Bob Nixon** (Chief Investigator, Aust. Skeptics) & **Ray Crossley** (Dowsing Society, Vic): Digging the dirt on dowsing

**Richard Saunders & Barry Williams:** Bent Spoon Award

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(Full details and Registration Form on loose insert in this issue)

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