

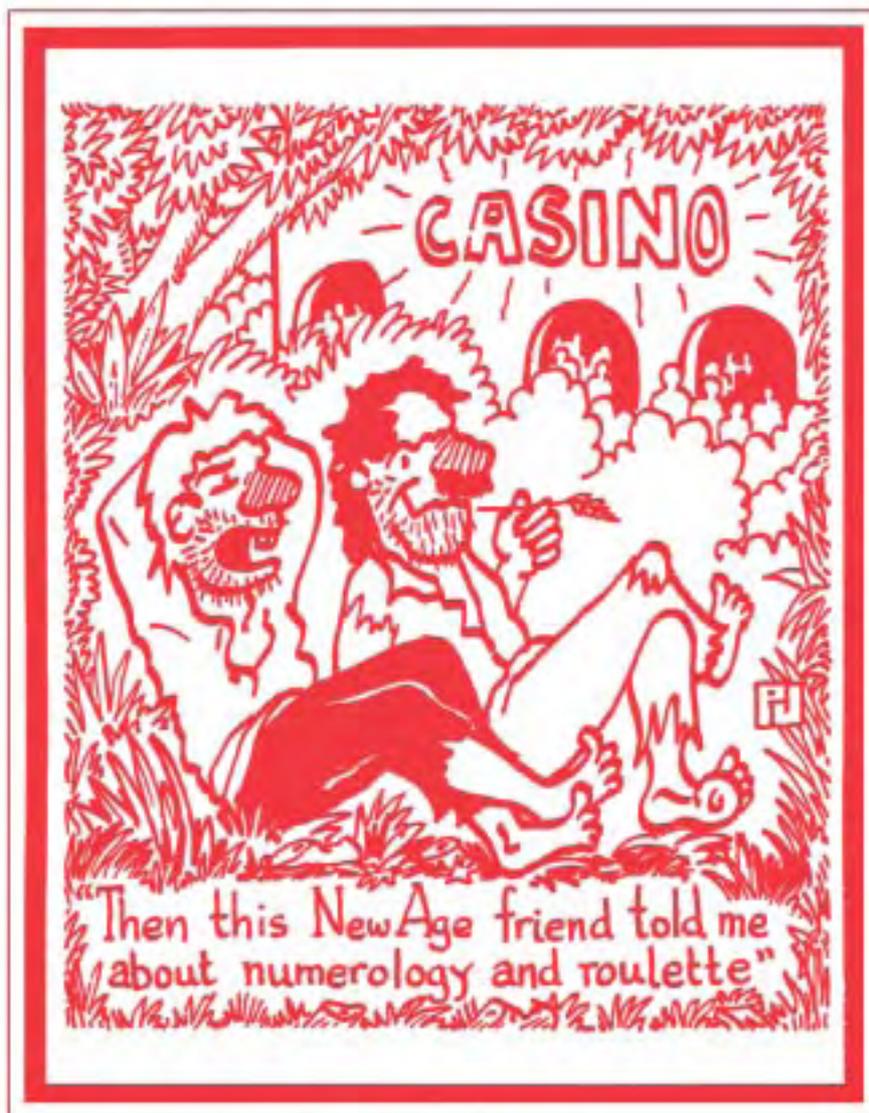


the Skeptic

Volume 12, No 4 (Summer 1992)

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living in a new age



Astrology
Paranoia
Armageddon

CONTENTS

4	Renewal
5	NSW Branch Dinner
6	Victorian Branch Dinner
7	New Age Festival
8	More Planetary Influences
9	News and Views
10	Astrocam
11	Tasmanian Matters
12	Spreading the Word
13	Creating an Impression
14	Chance and Coincidence
16	Natural Law and Politics
19	New Zealand Notes
20	Adam, Eve and Thermodynamics
23	Astrology Today
26	Paranoia
20	Null Zone Revisited
31	Pop Music Defended
34	Scepticism and Knowledge
40	In the Name of Science
42	Soul Food
43	Turkish Interlude
44	Divining
45	Reviews
46	Forum: Misrepresentation
48	Forum: On Cyril Burt
50	Letters to the Editor
58	About our Authors

From the President

October 29 1992 has come and gone with no sign of Jesus walking on the clouds, of the naked bodies of believers levitating skywards, of crashing cars, trucks and aeroplanes, nor of any other signs of the so-called Rapture. And so, the poor deluded individuals who placed their faith in this *fin de siecle* foolishness are freed from their particular delusion. Sadder and wiser? Sadder perhaps, but wiser I doubt.

History tells of many 'prophets' who have perpetrated similar flights of unreason whenever they noticed that the calendar was heading towards a 00 terminator and, needless to say, they have all been proven wrong. Yet there are always some who will follow the next crank off

the rank, in many cases the same people who were fooled by the last one.

Nor is there any indication that the catalogue of sellers of simple-minded synthetic salvation is growing any shorter. The seductive no-pain promises of the 'alternative healers', the proponents of 'religious-myth-as-science', the purveyors of 'subtle energies' continue to attract the unwary and the unsophisticated.

But all is not gloom. Australian Skeptics has experienced a boom year, with an increase in numbers of 30 percent on 1991. The need for scepticism does not diminish, so please keep up the good work and all the best for the holiday season.

Barry Williams

the Skeptic

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Renewal Time

The time has come for the renewal of subscriptions to *the Skeptic*, but only for those subscribers whose issue contains a Renewal Notice. As mentioned in the previous issue, increased postal and printing costs have forced us to increase our rate to \$25 per year or \$65 for a three year subscription. We do urge you to send in your subscription renewal as soon as possible, and for those who manage to do so before January 31, we have a special rate of **\$22**.

We believe that the 1992 issues have been among the best ever and they certainly have been the largest issues to date (this issue is 58 pages). We intend to keep up the quality and size of *the Skeptic* in 1993 and are very keen to print articles and letters from our subscribers. For those who have the facilities, we now have several options available to facilitate your communication with us.

Articles or other contributions can be sent via E-mail to **skeptics@spot.tt.sw.oz.au** or on either 3.5 or 5.25 inch discs, preferably in ASCII text format. We have also just installed a Fax (number **(02) 417 7930**) and of course we still accept letters through the post. Items sent by smoke signal, message stick, semaphore or heliograph are unlikely to be treated with any urgency, while messages sent by ESP are unlikely to be noticed.

We have some news for those who wish to become collectors of back issues of the *Skeptic*. Original copies

of the early editions of the magazine have long since gone to that great paper repository in the sky and we have been photocopying issues for the discerning collector.

We are now compiling a composite issue of the first five volumes of the magazine and hope to have it available early in the new year. It will contain all articles and comments of note from the first five years. All that will be missing will be items of purely topical interest, reprints from other publications and trivia. As yet, we have not established a price for the publication, which will be in a format similar to the current magazines.

After twelve years of continuous growth from very humble beginnings the *Skeptic* has, for the first time, passed the important milestone (kilometerstone?) of having 1,000 paid subscribers. In the past year our numbers have increased by almost 30%, the largest annual increase, both in percentage and overall numbers in our history.

The 1,000th *Skeptic*, Mr **Bill Owen** of Mortdale NSW, has been informed that he can now refer to himself as a Kiloskeptic.

To celebrate this historic occasion, we have conducted a draw from all current subscribers and have awarded a free three year subscription and a selection of sceptical books to **Mrs Barbara Nivison-Smith** of Kareela NSW.

Editors: Barry Williams
Harry Edwards

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Articles may be reprinted with due acknowledgement to *the Skeptic*.

Successful Sydney Dinner

Tim Mendham

The NSW Branch of Australian Skeptics held a dinner on October 23 to celebrate the concurrent events of the 5995th anniversary of the creation of the Earth and the same planet's demise through the "last days" due to begin on October 29 and/or through entering an electromagnetic Null Zone.

The fact that you are reading this report is good evidence that either none of these last two events took place or alternatively that we are a particularly unobservant bunch.

The birthday celebration was based on Bishop Ussher's famous calculation that the Earth was divinely created at 9.30am, on October 23 4004 BC. A modicum of mathematical skill shows that 1992 is the 5995th anniversary, there being no year zero. This fact caused President Barry Williams some embarrassment as he had to admit that he had earlier announced in these pages that it was the 5996th anniversary.

In his presentation speech, Barry pointed out that Bishop Ussher could not really be blamed for his

inaccurate prediction. When he made it, Isaac Newton was still a fractious teen-ager and the good bishop was using the best evidence available at the time. Barry went on to point out that this offers no excuses to modern followers of the bishop who insist on adhering to his dating methods, despite overwhelming scientific evidence to the contrary.

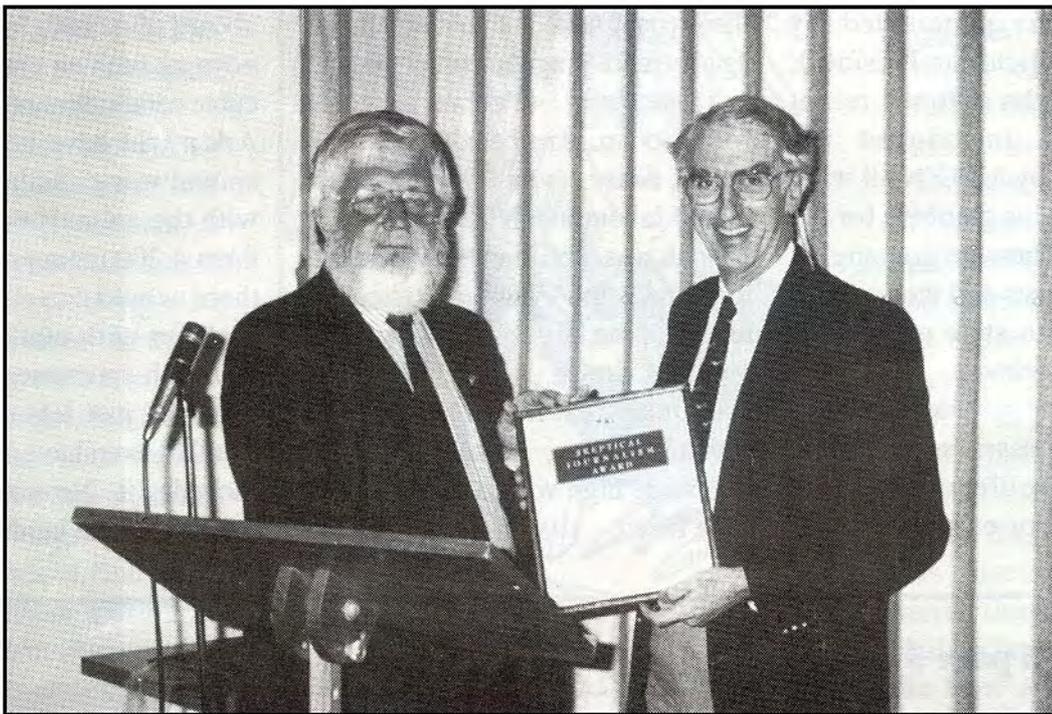
The end of the world, or at least

if not surprise.

And we were already supposed to have entered the "Null Zone", during which all electro-magnetic activity would cease.

Barry Williams made it clear that the proponents of this event had little appreciation of the impact electromagnetic radiation has on our everyday lives. In any case, this particular electromagnetic blackout

seems to have been a fizzer (see article by Dr Andrew Parle, elsewhere in this issue). Despite the gloomy predictions, the dinner was a considerable success, with over eighty Skeptics turning up to discuss matters sceptical



Barry Williams presents the Skeptical Journalism Award to Dr Peter Pockley

the beginning of its "last days", was predicted earlier this year by a religious group of uncertain parentage who had declared 2am (AEST), October 29 as the timing for the big announcement. The fact that one of the Korean leaders of this group had collected large donations from the members and invested in bonds not due to mature until next year was greeted with amusement,

and witness the presentation of one of the two journalism awards announced at the recent Skeptics Convention.

The 1992 awards were given to freelance science journalist, Dr Peter Pockley, and the *Melbourne Age* science columnist Graeme O'Neill. Dr Pockley received his plaque from the president, whom he promptly nicknamed the Bishop, no doubt due

Memorable Melbourne Dinner

Bob Stevens

To bestow the Skeptics 1992 Skeptical Journalism Award on Mr Graeme O'Neill of the Melbourne Age, and to celebrate the 5,995th anniversary of the creation of the world, about 50 people attended a sumptuous repast at a Melbourne restaurant on October 23. Diners tucked into Ark Soup, Creationist Crepe, Sacrificial Lamb and Leviathan of the Day, followed of course by Forbidden Fruit. No writing appeared on the wall.

The meal was punctuated by speeches from Victorian President, Ian Drysdale, who outlined recent activities and introduced the committee, and by Mr O'Neill who, after expressing his gratitude for the award, outlined how he got tangled up with creationists and then moved on to lament the state of science teaching in our schools.

After the dinner our guest speaker, Ian Plimer, discussed some newly discovered problems in Ark management. For example, if the Flood had caused the formation of

geological strata, then all the seawater must have been thick, salty mud. No self respecting fish could be expected to live in this (especially fresh water species), so they must have all been carried on the Ark. The tanks to hold pairs of each species of whale must have presented Noah with a problem – but then he and his three boys must have been pretty slick with the saw and chisel because, as soon as they had finished the far end of the Ark, they would have had to start all over again, rebuilding the earlier bits that had rotted away. (This was a problem for wooden ship builders in more recent times, even when they had lots of labour available.)

Noah was a brilliant ship designer too, since the Ark was twice the length of the largest wooden ship of modern times, which flexed so alarmingly that it was restricted to coastal waters, nothing like the kilometre high waves the Ark must have faced.

He had obviously been picking

someone's brains – we can be sure of this since it is the only way he could have carried the pair of little worms which confer the disease *kuru*, which affects the brains of New Guinea tribesmen and can only be transmitted by eating such brains. Or they have to have evolved by mutations (aaaarrghh – press , wash computer keyboard with soap and water).

The estimated 30 million animals aboard must have had a pretty rotten voyage, with an average of only 1.1 cubic centimetres of space each. The Ark might have been stabilised by animal wastes acting as ballast, but with the animals producing among them 4,200 tonnes of waste per day, there would have been a bit of a problem with methane generation, and with spontaneous combustion, if it was just left there. So Noah couldn't even have a smoke while he shovelled it. No wonder he needed a drink when he landed (*Gen 9:21*). ■

... dinner form page 5

in part to Barry's rather dramatic suntan, his having that day partaken of some particularly virulent Sydney sunshine. Dr Pockley gave a short talk on his dealings with the group promoting Arkaeologist Allen S. Roberts and his investigations of Dr Roberts' qualifications (see Bent Spoon report, *the Skeptic*, Vol 12, No 3). This investigation was not without some degree of personal discomfort for Dr Pockley, who subsequently received a great deal of carping criticism from Creationist

circles, as well as a number of anonymous phone calls.

Barry Williams was a recipient of his own surprise award, which recognised his great contribution to the success of Australian Skeptics both as chairman of the NSW branch since the organisation's inception in 1980 and as national president since 1986.

Barry has been an indefatigable and enthusiastic campaigner for the Skeptics for twelve years, and, apart from patrons Dick Smith and Philip

Adams, is probably the best recognised Skeptic in the country. He has brought wit and erudition to his role and, despite his obvious lack of mathematical skills, was a well deserved and roundly applauded recipient of the award.

In accepting the award, Barry perpetrated what was probably the only paranormal event most Skeptics have ever witnessed. He was totally at a loss for words. ■

NEW AGE Mind, Body and Claptrap

Barry Williams

He was alone when the call came. It was from the Network. Was he available for a case? Of course he was – he was, after all, the Skeptical Investigator.

He pulled up the collar of his trench coat against the drumming rain as he waited for the Network car to arrive. The assignment was a tough one. Look over the Festival of Mind, Body and Spirit. Find out what was going on. Seek out The Truth! Just part of a normal working day for the SI.

Darling Harbour lay sullen under the leaden sky, the exhibition building promising a haven from the incessant downpour. Following the Network crew inside, he knew he was entering the New Age. Crystals scintillated, the sickly stench of incense and flower essences assailed his nostrils, while his ears registered the saccharine sounds of flutes and pan-pipes. "Elevator music", he mused. The Man, organiser of the affair, acknowledged his presence with a curt nod. He was not pleased to see the SI with the Network crew. Obviously the free publicity was not going to be all that positive.

On a stage, people were leaning on other people. Massage it was called. They made Graeco-Roman wrestlers look frenetic. They were replaced by a man singing. He sang that he was not mad. If he was not mad, why was he appearing on stage in his pyjamas? Next, a Sioux teepee. The proprietor claimed that the tent

channelled energy in exactly the same way as the Egyptian pyramids. The SI found it difficult to disagree.

Plastic symbols attached to a thong. "Feel the vibrations" chanted the purveyor. "I feel hungry" said the SI. "We deliver light and energy into your life" chorused the assembled

in his hair.

Alternate Access Bookshop read a sign. The entrance is through the floor? Have Your Hearing Tested!! Worth a try. "You are deficient in the lower frequencies" said the attendant, proceeding to lay on hands, demanding that God do something about it. "You are deficient in marbles" mumbled the SI.

A magic flute player, whose appearance and publicity suggested that flute playing was the cause of alopecia. Could that explain why Mozart always wore a wig?

Where was Truth? No sign of it among the massed purveyors of holistic harmony and cosmic consciousness.

It began to dawn on him. Energy! It was all around him. Was that why the sweat was dripping from his nose? Why his face was turning red? Could this explain why he was discovering the ham buried deep within himself? Had he been wrong to doubt the New Age? But then, if there was all this energy about, why did the Cameraman need to

keep changing his battery?

With a blinding flash he saw The Truth.

A shirt, tie, tweed jacket and trenchcoat is not a suitable outfit for conducting sceptical investigations in mid-November.

The results were shown on *The 7.30 Report* (ABCTV) on Friday November 20. There is no thought of turning it into a mini-series. ■



hucksters. "So does the Electricity Commission" he responded.

Alternative therapies for pets – edible algae – holistic pulsing – aroma therapy – balancing training – past life therapy – aura photos – reflexology - iridology - the madness went on and on. Incongruously, the Association for Good Government nestled between the Hari Krishnas and Sahaja Yoga Meditation. A charming witch sprinkled gold dust

ASTROLOGY

More Planetary Influences

Barry Williams

Once again an item by Nigel Henbest (*New Scientist* 14 November 1992, p 24–5) has give rise to evidence of the fundamental absurdities of astrology that I canvassed in ‘Planetary Influences’ (*the Skeptic* Vol 12, No 1).

Henbest’s article, “The ‘planet’ that came in from the cold”, discusses the discovery, by David Jewitt and Jane Luu at Mauna Kea Observatory in Hawaii, in August 1992, of a new body orbiting the sun at a distance of 39-44 AU (Earth - Sun = 1AU). This places the object at more than one billion kilometres further from the sun than Neptune and makes it the farthest natural object ever observed in the Solar System (the Pioneer 10 spacecraft, launched in March 1972, is actually farther from the sun). The object, catalogued as 1992 QB1, has an estimated diameter of 200km, making it comparable in size with the larger asteroids in the Asteroid Belt.

Now all of this should not make much difference to astrologers because, as I showed in “Planetary Influences”, astrologers ignore the asteroids in their calculations. But there are exceptions and I am prepared to predict that 1992 QB1 will be one of them. The object discovered in 1977 and now named Chiron, which orbits the sun between the orbits of Saturn and Uranus, is commonly used in horoscopes by many astrologers. Why this body, with a diameter of 300km, should be so honoured, while larger and closer asteroids in

the belt were ignored, was a mystery that I once thought would remain insoluble. Now I believe that I have the answer, which I will modestly call Williams’ Ultimate Grand Unified Theory of Astrological Relevance (Nobel Committee please note).

This is my theory. When all the major asteroids were discovered there wasn’t much in the way of mass media, so their impact on the popular consciousness was probably fairly muted. The existence of the Asteroid Belt having been established, new additions to its numbers would also not have been considered particularly newsworthy and so they went unremarked by the public at large. By 1977, however, the number of news outlets worldwide had grown to plague proportions, and the pressure for news stories amenable to the application of sensational headlines, became irresistible. So the observation of Chiron was greeted with banner headlines shouting “Tenth Planet Discovered”. I witnessed at least one such headline personally. When reports of 1992 QB1 filtered out in October 1992, exactly the same headline graced at least one, and probably many other newspapers and TV news broadcasts. (Why this was not “Eleventh Planet Discovered” remains a mystery.) As astrologers (in common with their soul mates the creation ‘scientists’) are unlikely to read the scientific journals, for fear of having their dubious faith destroyed by collisions with reality, the only indication they are likely to

get of new discoveries is through the popular media. So this, in a nutshell, is my theory:

“The chance of a celestial body being incorporated into horoscope charts is in direct proportion to the size of the headlines it generates in the popular media.”

Oh! by the way, 1922 QB1 will eventually be given a name from mythology, but its discoverers, who were discussing the novels of John le Carre on the fateful night, have given it the working title of “Smiley”. So here’s a free tip for the astrologers. Those whose lives are ruled by 1922 QB1 will be secretive individuals with unfaithful spouses. Don’t mention it. ■

Apology

In an article in *the Skeptic* (Vol 12, No 3) headed “Queensland Science Show”, we stated that the organisers of the *Great Australian Science Show* had offered us free space in the show.

This statement is incorrect. The space was made available under a grant from the Department of Trade, Industry and Commerce, Science and Technology Awareness Section which encourages scientific and related organisations to promote understanding of science and technology.

We apologise for this error and extend our gratitude to DITAC and to Mike Pickford of the *Great Australian Science Show* for their valuable support. **BW**

News and Views

Sir Jim R Wallaby

The United States Government has recently allocated \$100 million to the Search for Extra-Terrestrial Intelligence (SETI) programme, under the control of NASA. The programme uses radio telescopes and other sophisticated electronic impedimenta to scan a wide range of radio frequencies across the entire sky, searching for signals which may indicate the existence of extraterrestrial civilisations.

The fact that the US government, with all its economic woes, would spend scarce resources on a project such as this should put paid to the conspiracy theories of the more extreme UFOnuts, who hold that the US government is already dealing with ETs living in the Nevada desert (though I would not count on it).

* * *

Science (Vol 257, 24 July 1992) reports on a contest held in Britain in which groups or individuals were invited to manufacture 'crop circles'. The contest which was organised by *The Cerealologist* magazine and the proponent of 'formative causation', Rupert Sheldrake, purported to test if people could make circles that were indistinguishable from allegedly genuine formations.

The formations shown in the accompanying photograph were every bit as complex as those which excite the believers, although the chief judge, a German political journalist, claimed that the winner "lacked the 'flow' evident in many of the circles he had seen". The winning team consisted of three engineers from a helicopter company though it is not suggested that they

used helicopters hovering upside down. The runner-up, American PhD student Jim Schnabel, who worked solo using a plank, lengths of rope and a small garden roller, said "It's pretty clear to me that the phenomenon we've seen in England in the last 10 years is the result of people like me going out into the fields".

There is nothing about the crop circle phenomenon to suggest to me that he is wrong, but the real question is, why on Earth would anyone select a political journalist to judge a scientific test?

* * *

In October Australia played host to yet another fire walker. Jussta, self-described as a "healer and professional fire walker", participated in a fund raising fire walk for the Wayside Chapel, on coals at an alleged 1000 ° Fahrenheit. This event was shown as an item on the *7.30 Report* (ABCTV), during which she was heard to proclaim that some of the wood used in the fire came from a nearby marina on which Neil Armstrong had once walked. She seemed to think this gave the punters a connection with the moon. I would tend to agree.

As Jussta was also planning to visit Melbourne, the Victorian branch was asked to advise the media of our Challenge to Firewalkers (*the Skeptic* Vol 10, No 3), in which we offer \$30000 to any promoter of firewalking who can demonstrate that their mind powers protect them while walking on a metal plate at a temperature considerably lower than 1000 ° F.

This challenge has attracted the notice of at least one overseas sceptical (and humourless) subscriber to a computer network who has called our morality into question by suggesting that we would deliberately harm a firewalker to prove our point. Of course this is untrue, as we would certainly never devise a test that could cause physical harm to anyone – apart from anything else, it would certainly be illegal. As at publication date, we still have no takers.

* * *

While I was meandering quietly along the Pacific Highway the other day, my reverie was shattered by the intrusion of a news broadcast, which informed me that the Housing Department had announced that "2,700 dwelling units" had been commenced in the last month.

Unbidden, a vision arose in my mind of Nellie Melba, at one of her innumerable farewell appearances, entertaining the fans with her famous rendition of "Be it ever so humble, there's no place like dwelling unit", then of Tom Jones warbling about the "Green, green grass of dwelling unit" and even more disturbingly of a chorus of singing cowboys* giving voice to "Dwelling unit, dwelling unit on the range".

I don't suppose it has much to do with the affairs of the Skeptics, but it does serve to show that linguistic ratbaggy is not confined to the purveyors of New Age pap or fringe religion.

* Should that be kinepersons?

NEW AGE

Astroscan 2000

Inforaml

A few weeks ago, observant people, or even very unobservant people, passing through the Cat and Fiddle Arcade (in the middle of Hobart's central business district) might have noticed the 'Astroscan 2000 computerized character analysis' in operation. The machinery, in addition to a large flashing blue light, had various little flashing and whirring bits and pieces to impress upon good citizens passing by it that, for a mere six dollars, they could have their palms read, their signature analysed, their horoscope made, numerology assessed and lucky numbers provided.

"Ruling numbers", according to the Astroscan printouts, "determine [people's] character traits, desires, successes, purpose in life and being in tune with the rythm [sic] of the universe." I observed that the operators of this machine did good business whilst I waited for a policeman to arrive in answer to my complaint against this flagrant breach of section eight of the Tasmanian Police Offences Act 1935 (as amended).

Section 8 (i) g states that no person shall "pretend or profess to tell fortunes or use any subtle craft, means, or device, by palmistry or otherwise, to defraud or impose on any other person". The penalty for such an offence can be six month's imprisonment.

The Police Constable who investigated my complaint told me that all the official requirements to trade in the Cat and Fiddle Arcade were in order and that someone, other than me, who had forked out six bucks and who, accordingly, felt aggrieved, would have to lodge a complaint. I maintained that he should arrest those lawbreakers immediately, but I predicted, quite accurately, that someone who had been defrauded by these charlatans would soon lodge a complaint.

Some time later, coincidentally, I accompanied a citizen to the police station after he had come to me seeking advice. He had spent six dollars to receive a computer print-out which was little more than the random production of a simple computer program. The purveyors of this foolery, however, had assured him that it could accurately predict the future and would also reveal the truth about his own nature. This citizen was willing to testify that the operators of the Astroscan 2000 had wilfully pretended and professed to tell fortunes, used subtle craft, means, and devices, by palmistry and otherwise, to defraud and impose on him. What's more,

he said, the palm reading device was not attached to the computer: the operators of the Astroscan 2000 were not even honest frauds.

The admission in fine print on the printout, which they never brought to the attention of their customers, also offers proof, to my mind, that these businesspeople are deliberately fraudulent. In six-point type, it says, "The computer printout above was produced by precision equipment and although most people find their analysis to be remarkably accurate, due to the many complex factors involved, scientifically provable results cannot be guaranteed. Therefore, this analysis is for your fun and entertainment only."

The Desk Sergeant at the Tasmania Police station in Liverpool Street clearly thought that he had a couple of nutters on his hands and grudgingly took a few details; he submitted that no person took any of this business seriously even though I witnessed many people paying for their palm readings withal who appeared to take it quite seriously. I could also testify that the female operator of the Astroscan 2000 claimed that she had an eighty per cent success rate at predicting the future.

The sergeant said that this sort of thing happened all the time; we responded that burglaries happened all the time but, at present, the police still attempt to dissuade people from committing that particular offence. The sergeant said that police have better things to do (such as preventing burglaries) than worry about insignificant offences; we agreed but pointed to the actions of the Drug Squad: surely, we reasoned, the police have better things to do than worry about people who harm themselves only. The sergeant replied that Parliament, in its wisdom, prohibited the possession of various substances and had not yet seen fit to repeal that law; we responded, predictably, that Parliament, in its wisdom, had also not yet seen fit to repeal section eight of the Police Offences Act. The problem remains that the authorities see no problem with clairvoyants, tarot readers, palm readers and the like wilfully defrauding the gullible. It is interesting to note, in this modern politically correct era, that New Age prophets plunder the records of past cultures for all sorts of strange methods of foretelling the future, but no one has yet resurrected haruspicy: that wide-spread classical practice of reading entrails. ■

TASMANIAN BRANCH NEWS

The Return of Plimer

Tim O'Neill

The Tasmanian Branch of Australian Skeptics was reestablished at a meeting held on Friday September 4 and Tim O'Neill from the English Department at the University of Tasmania was elected as President of the branch. The first public Branch function was a meeting at which Professor Ian Plimer was the Guest Speaker.

Prof Plimer Triumphs

Readers may remember when Professor Ian Plimer, Head of the School of Earth Sciences at Melbourne University was removed from a talk by Creationist and 'ark ologist' Allen Roberts, for daring to ask questions from the floor. We decided that Ian Plimer should be given the chance to return to tell his side of the story; so, with the invaluable assistance of Dr Rick Varne and the Geology Department of the University of Tasmania, we brought Ian back to Hobart.

On Tuesday September 15 an audience of about 230 people packed into the University's Physics Lecture Theatre to hear Ian's talk, provocatively titled "Creation 'Science': Telling Lies for God". He began by pretending to accept the standard Creationist view of the universe, and then doing some simple calculations to see what the results of their assumptions would be.

He had the audience in fits of laughter as he calculated the amount of excrement on Noah's Ark, the amount of methane this would have produced, the plight of Noah and his family as they struggled to feed and water millions of animals whilst suffering from a host of human-specific diseases (including such mild complaints as typhus fever and bubonic plague) and the incredible journey of the naked mole rat from Mount Ararat to Australia. It was easy to spot the handful of Creationists in the audience: they were the ones who were not laughing.

Ian went on to demonstrate several examples of intellectual and academic dishonesty and incompetence on the part of leaders of the Creation 'Science' movement. He then highlighted the lengths to which Creationists will go to silence their critics: death threats, legal action and the mutilation or destruction of 'incorrect' books. We saw an example of this on the morning of Ian's talk, when local Creationists phoned

the University and threatened legal action even before Ian's plane had landed.

By the end of the talk, Ian had obviously convinced the audience of both the idiocy and the threat of Creation 'Science'. He concluded, "I want a society that knows how to think, not what to think". The audience's response was enthusiastic and Ian answered a large number of thoughtful and interesting questions from the floor. About fifty people gave us their names and addresses and expressed interest in joining the Tasmanian Branch, while many others encouraged us to keep up the struggle against Creationism. All in all, it was a very successful event.

Many thanks to Rick Varne and the Geology Department of the University for their assistance.

Contacts:

Write to the Tasmanian Branch of the Australian Skeptics, GPO Box 1124 K, Hobart Tasmania 7001 or send Email to: Tim.ONeill@english.utas.edu.au or Telephone: Dr James Marchant (002) 624 3323 ■

**If you are moving,
please advise us of
your new address**

VICTORIAN BRANCH NEWS

Spreading the Word in Gippsland

Ian Drysdale

The Revivalists are very active in Victoria and seem to be quite strong in three or four locations, one of which is Morwell in Gippsland. The Revivalists are Christian fundamentalists, with strong ties to a large Revivalist church in New Zealand. Their services are lively affairs, with energetic clapping to accompany the music – usually played live and loud. Faith healing and speaking in tongues are widely practised within this church.

At the invitation of the biology teacher at the Yallourn Secondary College, Professor Ian Plimer and I journeyed to Yallourn for the purpose of engaging in a debate with Pastor Mervyn Sunderland of the Morwell Revivalist Centre. When we arrived, we noticed with interest that the school library had several examples of creationist literature on its shelves and, at the evening's end, Prof Plimer presented a copy of *Creationism – Scientists Respond* (Victorian Skeptics, 1992) to the library. While it may not match the creationist propaganda in the amount of words, it certainly contains a lot more facts than their entire output.

The debate was directed towards Year 12 biology students and turned out to be interesting from several points of view. Pastor Sunderland's position on creationism was surprising in that he differed from the better known CSF position on more points than he agreed with. Even more curious was the fact that he was giving away copies of the CSF's notorious *Quote Book*, which he openly stated he did not totally agree with.

His position on Noah's Ark was fascinating. While rejecting the "Dr" Roberts Ark, he claimed that when the real ark is found it will be proof of God and the greatest day ever for Christians around the world. When pushed on the point of Noah coming to Australia to pick up a koala, Pastor Sunderland stated that the Ark only contained animals of the average size of a sheep, that the flood was local, not global and that Noah's cargo consisted largely of domesticated animals..

The Revivalists seem to have no problem with the geological time scale of billions of years, holding that the concept of 'day' used in *Genesis* was flexible and not restricted to 24 hours.

An entirely new angle on creationism, one I have not

encountered before (as if we didn't have enough already) is the concept of Adam and Eve not being the first humans. He stated that the dark skinned races were created on the sixth day, thereby implying that the white folk (the races that God gave agriculture) were created later, once God had had a bit of practice on the blacks. The racist implications of this seemed to by-pass the audience.

So the Revivalists are small 'c' creationists at best. The only area in which Pastor Sunderland was adamant was that, once God created man (blacks first – whites second), evolution has not occurred in the human race or in any other animal. He did concede that a small amount of 'horizontal' evolution takes place within a 'kind', but that no vertical evolution occurs.

Questions from the audience seemed to be divided, with the aisle between the seats the unofficial demarcation line. Pastor Sunderland had several of his followers along, although one questioner who claimed creationist beliefs gave him quite a grilling on biblical scriptures, highlighting a surprising lack of biblical knowledge on the pastor's part.

The size of the audience was not great, but the evening was judged to be a success from all sides. I doubt that any converts were made on either side, but at least the Skeptics had an opportunity to put our point across in an area where there seems to a very active creationist presence. It is the first time I have seen CSF literature given away free and assume that they made a special effort to get their message to the students in attendance, the obvious target for any cult worth its salt.

That the group passing out the CSF literature had a distinctly different slant on the mechanism of creation from that of the CSF seems odd, but only until one understands the fact that all creation myths, none of them having any scientific basis, are equally irrational. There is just no way to distinguish between them by the exercise of rational faculties.

As to their promoters literal and faithful adherence to the stories contained in the Old Testament, there it appears to be a case of 'you pays your money and you takes your choice'. ■

NEWS REPORT

Creating an Impression!

Barry Williams

Listeners to the ABC Radio religious programme *Sunday Night Talk*, broadcast on the metropolitan and regional networks Australia wide on September 6, were treated to an extraordinary performance by representatives of the Creation Science Foundation. Entitled 'In the Beginning, God' and advertised as a discussion on the biblical stories of origins, it was expected to be a debate between the proponents of creation 'science' and educators who opposed its inclusion in school science curricula. The result was one of the most one-sided debates in broadcasting history.

Representing the creationist cause in the Brisbane ABC studio were CSF Managing Director Dr Carl Wieland, a medical practitioner, and Dr Andrew Snelling, a geologist and director of the CSF. In the Sydney studio were Peter Ofner, Science Master at St Augustine College, Barry Price, author of *The Creation Science Controversy* and former science and religion advisor to the Catholic Education Office, and Professor Eddy Zemach, Professor of Philosophy at the Hebrew University in Jerusalem. The program was moderated by John Cleary from the ABC.

Immediately the programme went to air with Mr Cleary introducing the guests, the complaints from the Brisbane studio began. Dr Wieland complained that he had an understanding with the ABC that there would only be two on each side of the debate and that his organisation had a policy of not debating with members of

Australian Skeptics, who 'indulged in unethical tactics and made smears of sexual aberration against creationists'. This oft repeated and unsubstantiated claim, like most claims made by the CSF, is of course untrue. None of the Sydney guests was a member of Australian Skeptics, although Mr Price does subscribe to *the Skeptic*, as does Dr Wieland. In attempting to continue the discussion, Mr Cleary pointed out that the ABC did not accept conditions from its guests, and invited the CSF representatives to address the issues. Muttering about ethics and honour, Doctors Wieland and Snelling departed, possibly in high dudgeon, though to the casual listener it sounded much more like low farce.

In the event, they probably saved themselves from an even greater loss of face, as phone-in comments from the listening audience showed that they understood both science and religion with considerably more depth than the Sunday School ideology that passes for intellectual discourse in creationist circles. Of all the callers only one, a high school student, tried to defend the creationist position, quoting from discredited CSF publications. The remaining panel members treated her with gentle courtesy in pointing out the factual errors in her argument.

This farcical episode pinpoints the tactics used by the CSF in seeking to promote their specious message. They will not debate their case unless they can control the format of the debate. In particular, they will never debate particular scientific issues,

nor it now seems, theological issues, with people who are literate in these subjects (far better to preach to the uninformed, who probably won't argue). When forced into a confrontation, they will make spurious attacks on the integrity of their opponents, particularly so in the case of Australian Skeptics, against which organisation they exhibit an almost pathological paranoia.

Meanwhile, creationists seek to further obfuscate the debate and to conduct it in the only forum in which they perceive they can acquire any credibility – the political arena. NSW MLC Rev Fred Nile has announced that he intends to introduce legislation to allow the teaching of creation 'science' in school science classes. As the policies of all major parties in the NSW Parliament oppose this, it is unlikely that he will succeed. In a brief recent debate between Mr Nile and Dr Alex Ritchie on *Today* (Channel 9) it was clear that Mr Nile plans to rely on the superficially plausible, but scientifically untenable propaganda peddled by the CSF.

* * *

On the same topic, The Science Teachers' Association of NSW has adopted the following policy: "The Science Teachers' Association of New South Wales Inc rejects Creation "Science" as a valid science. Consequently, we are opposed to the inclusion of Creation "Science" in any Science course." This policy constitutionally binds branches of the STANSW and copies are available from the Association. ■

REVIEW

Chance and Coincidence

Harry Edwards and Barry Williams

By a uniquely stupefying coincidence, the like of which has never before been seen in the Universe in its entire 15 billion (or 5,995) year history, Skeptics Secretary Harry Edwards and President Barry Williams, at absolutely the identical nanosecond, each decided to write an item about the TV programme *Chance and Coincidence* (7 Network, September 16)*. The results follow.

In the Winter 1991 issue of *the Skeptic* (Vol 11, No 2) I wrote a column entitled "Coincidence Corner", in which I postulated that coincidences are simply coincidences and have no underlying psychic connotations. There are grounds for believing that this article may have played a part in initiating the TV special on the theme of coincidences, during which several members of the National Committee made comments.

My personal contribution consisted of the two coincidences mentioned in the above column, both of which were 'reconstructed', but only one of which was used in the programme. This one showed the building in which I live and the address, of which more later.

During the taping of the audience section of the show, we were directed to 'make statements' not appear to be responding to other comments, thus we should begin with 'I believe', 'I think', or 'In my opinion', etc. This was to give the impression that there was no discussion or interchange of ideas,

when in fact there were all of these.

In my case, this editing process, while it suited the format, resulted in what I see in hindsight as an irrelevant contribution, with nothing to do with the topic under discussion. Immediately prior to my speaking, a member of the audience had said, in answer to the question "Do you believe in luck?" that "Psychics, clairvoyants and others can influence luck by their vibrations".

I commented, "In respect of the previous speaker's claim, my mother was a clairvoyant and palmist for over forty years, during which time she purchased two lottery tickets every week. In that time she won a total of \$20.00".

This was meant to illustrate the absurdity of the claim that vibrations had anything to do with influencing luck, unfortunately the words "In respect of the previous speakers claim" were edited out, leaving my comment stand as apropos of nothing.

While the programme certainly emphasised the frequency of coincidences, the commercial content was excessive. There is after all, a limit to the number of cups of coffee and visits to the toilet one needs in a two hour period.

Referring to the coincidence mentioned in para 2. Immediately the show concluded, I had a phone call from a friend whom I met in Frankfurt, Germany in 1970, and have not seen since. Now living in Mackay Queensland, she had just turned on her TV and saw a street signpost, the name on which she recognised as the road in which I

lived. If that's not coincidental enough, I had already made arrangements to spend a holiday in Mackay the following week, completely unaware that she lived there.

HE

* * * *

My broadcast contribution to the programme was the completely unsurprising comment that every poker hand was exactly as unlikely as every other one, the only difference being that some were more memorable than others. Which is also true about coincidences at large.

Like Harry, I was disappointed with the amount of commercial content in the show, not only in the scheduled commercial breaks, but during the show itself. At times it seemed like a two hour advertisement for a large telecommunications network, a Korean automobile manufacturer and an insurance company. Much of the show was taken up with a 'giveaway' in which three subscribers to the telecom network (out of 5.2 million), whose numbers were selected at random from the computer, had a chance of winning a car, if they answered the phone with the T/com organisation's slogan. The first selected subscriber did not answer the phone so that car jackpotted to the final call. The second did answer and won a car. The third call was answered by a subscriber who was not watching the show, but won two cars anyway. She

also had the chance to win \$1 million, donated by the insurance company not, the host assured us, their own money, but a risk that had been 'laid off' with an overseas underwriter. To win this sum, we were advised, the selected person had to achieve a very long odds coincidence. As it turned out, the coincidence required the person's number to be randomly selected by the computer not once, but **twice**. I am no statistician, but I estimate that if the chance of being selected once is one in 5 million, then the chance of being selected twice consecutively is one in 25 trillion. Long odds indeed. I doubt that the premium on the 'laid off risk' would have caused much of a bump in the insurance company's cash flow graph.

But to the subject of the show. There certainly were some interesting coincidences mentioned, but far more of them were extremely forced. Several had to do with the 'remarkable' influence certain numbers played in the lives of such historical figures as Otto von Bismark, Ronald Reagan and John Lennon. These were classic cases of forcing the 'coincidences' to fit the preconceived theory and were simply evidence of creative programming. I venture to suggest that any randomly selected prominent person could be found to have any number of 'astonishing' coincidences relating to any randomly selected, single digit number. Then we had the old chestnut about the coincidences between US Presidents Abraham Lincoln and John Kennedy. This one seems to be a good example, but a little thought will reveal that it also is a case of 'forcing'. About the only interesting coincidence in the catalogue, apart from both Presidents being assassinated, was that each was succeeded by a Vice

President called Johnson. The rest can be shown to be forced by the selection of only those 'facts' that fit the theory, out of the millions of 'facts' available about someone as prominent as a President of the United States.

Those who are interested in such 'coincidences' can see many other examples listed in an article entitled "Our Spooky Presidential Coincidences Contest" by John Leavy in the Spring 1992 issue of the *Skeptical Inquirer* (available from Australian Skeptics at \$10, postage included).

One seemingly eerie coincidence concerned an American of last century who was missed by an assassin's bullet which lodged in a tree. Some twenty years later, it was claimed, the man tried to knock down the tree using dynamite, whereupon the bullet was expelled from the wood, striking him in the head and killing him. This story positively shrieks "Urban Myth" and certainly could not be true if the reconstruction shown was accurate. We were treated to another rehash of the fictional story of the sinking of a ship called the *Titan* after striking an iceberg, several years before the *Titanic* actually met the same fate. Martin Gardner has written an entertaining book about this event (*The Wreck of the Titanic Foretold?*, Prometheus, 1986), in which he dispels many of the myths of the case. For some reason, the producers of *Chance and Coincidence* seemed to go out of their way to show the differences between the fictional story and the actual events, rather than any supposed coincidences, while at the same time the breathless tones of the narrator suggested that something remarkable had occurred.

The main failing of the show was that it contained no serious discussion about the real explanations for seemingly

remarkable coincidences. No-one was asked about the laws of chance and the contributions from the invited audience, consisting of sceptics and believers, seemed to be interspersed throughout the show at random, with no particular relevance to the content. The comments from the assorted psychics and other mystics were the predictable load of meaningless 'psychobabble' and the sceptical comments were so devoid of context as to only serve to confirm the impression in believers' minds that we are universally negative.

At the beginning we were assured that everything shown was 'true', yet there were many obvious Urban Myths included. Even more so were the stories which relied totally on the memories of the protagonists of 'coincidental' events which took place, often with years intervening. It does not require too much in the way of scepticism to suspect that the memories of the earlier event may well have been ever so slightly embroidered to make the coincidence even more remarkable. This is a very common reaction of the human mind – I have even been guilty of it myself – and it calls all such coincidences into question.

As entertainment the show was no worse than much of what appears on our TV screens, but as a serious attempt to look at the phenomenon of coincidence, it fell far short of credibility.

To my mind, the best line of the show came from our own Tim Mendham, who, totally deadpan delivered this gem, "Coincidences do happen, but I think that people who put their faith in coincidence and chance are bound to have bad luck", before breaking into a seraphic smirk. I think he said it all. BW

* We have very good reason to believe that a tiny, microcosmic, almost imperceptible amount of hyperbole has been used here**.

** And here. ■

POLITICS

Natural Law: The Politics of Science

Adam Joseph

The Victorian election came and went with predictable results – in fact, close to most survey predictions. Unfortunately for the band of 32 candidates calling themselves The Natural Law Party (NLP), the result wasn't quite what they expected. Party politics is not normally a concern of Australian Skeptics (we have to draw the line somewhere), but then it is not common for political parties to claim to be able to repeal the laws of gravity.

The NLP is closely associated with the Transcendental Meditation (TM) movement, the brainchild of Maharishi Mahesh Yogi, who first came to prominence in the 1960s as the guru to the Beatles (a 1960s choral group). We have been closely monitoring the TM organisation since the first issue of *the Skeptic* in 1981 when Mark Plummer wrote on their \$5000 TM course to teach levitation, amongst other things.

But what would we have expected if they had won? The pre-election literature had the NLP telling the electorate they had all the answers for unemployment, small business, taxation, health, education, environment and law and order; that “every program and policy of the NLP is based on established scientific principles and supported by extensive research”. We are familiar with some of the ‘research’ which TM claims supports their views. Largely, it has been carried out by the in-house Maharishi University, and is about as reliable as a reference one's mother-in-law might supply for one's wife. The TM group has now become a wealthy organisation, reports from the U.S. indicating that their financial base is around \$4 billion today. There is no doubt that this kind of growth would inspire anyone to want to take on the whole world.

But back to the issue at hand. From our sources we have learned that in the top echelon of the TM organisation is Dr Byron Rigby, a psychiatrist and industrial medical consultant. So who better to chase for an interview for the full story of what kind of government we could have had under Dr. Rigby.

The interview was conducted on November 4 at the TM headquarters in Clifton Hill, Melbourne. The format was meant to be 20 short questions with 20 short answers. Unfortunately that's where we had our first

problem. There are no short answers from the Doctor. I should have realised this from participating in his encounters with Dr. Steve Basser on *The Liar's Club* radio show when a ten minute interview really meant thirty minutes.

The full text of the interview, unabridged and complete can be made available for those who want it. Here we are condensing his answers a little. Hopefully the essence will still remain.

Adam: Let's imagine you have just won the Victorian state election. You are now the new government. What would be the first things you would change?

Dr. Rigby: Very little because the NLP is not necessarily composed of a lot of people who have had a lot of experience in government, though it's becoming more and more so. Our policies wouldn't necessarily change any existing government. Our point is, the failures of government are not due to poor policies. The conservatives get in, they make a mess. The other side gets in and they make a mess. So we wouldn't be inclined to change a great deal. We would say that Australia's future depends on the performance of Australians. We're the only people that I know of that have a scientific approach to enhancing the performance of people. Brain development – intelligence development. So we'd establish an Intelligence Development industry. Our proposal for the Victorian election was to take a group of 7000 or so unemployed people, and that's easy because Mrs Kirner had already organised 5000, and train them in a form of employment training which added a few things to her approach...which is already there. We'd train them to be employees in various fields and trades of course. Second, we'd train them, those that were capable of that, and had the time, in small business development. Third, we'd try to train as many as possible to be self-employed. Now they're concrete external strategies. But central to that kind of training would be a major one...and that is to provide everybody with at least two hours training a day of enhancing brain function, and we'd use Transcendental Meditation for that. Not only because a lot of people behind the NLP are teachers of TM, but because scientifically this has

shown to be uniquely capable of enhancing performance.

A: What measures would you undertake for people who refuse to participate in your program?

Dr. R: Those who want to join, join. When you advertise a new university or a new training course, come who comes, they join the course. There's no need for compulsion. There's absolutely no relevance to that question at all. I think you're jumping ahead a little bit. We would implement in key areas of government, training courses for the development of human performance. There are a wide range of techniques available that do enhance memory, problem solving, lateral thinking. TM again is one of the best, so we put that on offer.

A: Can you define how long it could, or would, take you to revive the economy?

Dr. R: Like a very good politician, I'm going to ask the question I wanted you to ask instead of that one, but then I'll answer that one. All-party government! This is a very intriguing idea. What we have now is that 50% of the parliament is excluded from all government matters for three or four years. That means that 50% of electorates and 50% of the population have no say in the government. Of the remainder, at least 50% have no say because they're backbenchers. So we would say the party system is dictatorship in disguise basically. We would form an all-party government. We would invite a Minister for Industrial Relations from the Labour Party, a Treasurer from the Liberal Party, an Agriculture Minister from the National Party, a Minister of Social Welfare from the Democrats. We might even have a few NLP Ministers. So how long would it take for the economy to recover? Every company knows that company morale is a main factor. The main problems with leaders is they think they can run a country. What human being can run his own body? You don't even run your own liver. Who does? The laws of nature. That's why we call it The Natural Law Party. Nature knows how to organise. Now if nature's already operating in our physiology and our brain functioning, our focus of the eyes, and the growth of the hair; it's also organising the ecology. What we're talking about here is releasing a capability that human beings have to function in accord with all the laws of nature. There's no reason why society can't spontaneously blossom and unfold and re-organise itself in perfect balance and order.

A: You keep referring to scientifically validated programs in your literature. What scientifically proven program do you offer to help unemployment?

Dr. R: The key to improving employment is to create employers. So the emphasis has to be on enhancing innovation. New products, new marketing strategies, new management styles, new training programs. There are extensive programs where you can do that.

A: With your health program, how would you be able to help smokers and drug addicts?

Dr. R: Here again TM is a very strong one. Thirty seven percent of new people that come into the program smoke, and within four months only six percent are smoking. The power of the molecule is beyond human power. What you have to do is create a form of appetite of enjoyment that is actually better than the one we've got.

A: What guarantees can you give that these programs will work and what time limit will there be?

Dr. R: We would certainly say within half a year or a year. The turnaround will be substantial, that's totally undeniable. But guarantees beforehand are of a kind that never ever have been given by a political party before. This is research. This is the only time the light of science has come into politics.

A: You keep mentioning scientifically based research in your advertising, but you haven't shown it to the public.

Dr. R: When you advertise in a paper, isn't that availability to the public? Below every chart there is a chapter and verse, the standard scientific references. If we say there it is, you go to any library and get the librarian to look it up for you.

A: What changes would you make to law and order?

Dr. R: The NLP, while it endorses Transcendental Meditation, is not the TM party.

A: Just getting back to law. Murderers, rapists.....

Dr. R : We wouldn't be in a hurry to make radical changes in any area unless there was an emergency in that area. 'Cause the devil you know is better the devil you don't.

A: Incentives for enticing industry to create a pollution free industry?

Dr. R: Economic incentives both in terms of assistance and the punitive side. Basically that the polluter pays. Any industry that produces something but incurs a community cost in pollution and says it's cost effective is not actually making a profit. So fundamentally we'd be very strong in this area.

A: In setting up your infrastructure for government, there will be those that disagree. There are people that you cannot offer anything new. People who are wealthy. Where do these fit in?

Dr. R: I'm a psychiatrist and an industrial medical consultant, so I see a fair cross-section of the community. I've had 190 interviews with Trade Union leaders in the

last few months. I have had to do with industrial and executive training. I've never known one human being who can't benefit from enhanced brain functioning.

A: Who would be your leader in the new government?

Dr. R: At the moment the President of the party is Steve Griffith, but we haven't actually chosen the party leader. There are other people we're thinking of, there are some very top Australians..... Dr. Bevan Morris who founded the first university based on creative science.

A: Getting back to all-party government, party politicians have to stick to their party lines. What are you proposing to do to change that?

Dr. R: We're proposing to invite them to relinquish that and abandon having party whips. They may not buy it, but when you're elected you have a majority anyway. Either we govern on our own or they collaborate.

A: What is your foreign policy?

Dr. R: This will be based mainly on the fact that the only defence in the nuclear age is to not have enemies. And the only way not to have enemies is to cultivate friendship. And the only way to do that is be in reality a benign country. The only way to be that is not have those stresses and tensions within the nation and within the hearts of people which cause them to export their violence. So first of all it means creating internal peace. An internally peaceful country cannot be attacked. There's an old saying, 'violence cannot approach the peaceful'. That alone is enough to form an invincible armour to the nation. We basically keep people happy by helping them. If any two human beings can love each other, any two nations can love each other.

A: The US and Europe have some barriers for us in trade. What would the NLP do about that?

Dr. R: That's probably one of our hardest tasks. We can do anything we like within the country, but how to create an influence which is global and with our small population. On a practical level, it must be by our taking a lead in creativity. Look at what Switzerland has done. It's never been in a war in years, it stayed ahead economically, it's got no natural resources and it doesn't even have a seaport. They use their brains.

A: But they have just changed their government.

Dr. R: The first time in years. Japan has used its intelligence, it's used the inherent capability for unity of its people in a way that forces the rest of the world to think about being sensible themselves.

A: So do all countries in the world need the NLP in power for your methods to fully work?

Dr. R: No. We have for many years, been hoping, wishing, begging, pleading, cajoling, threatening,

governments to use these simple programs. Not only our own, but all simple programs. We couldn't care less if, as a result of our growing popularity, other parties pinch these programs.

A: In the first twelve months, what would the implementation of your policies cost?

Dr. R: The first phase which is the employment college would cost between \$30 and \$60 million. This would be contracted to people skilled in doing that kind of thing. The second phase of rehabilitation, education, health and industrial relations would be hard to estimate, but in the vicinity of hundreds of millions. It wouldn't cost a billion I'm sure of that.

A: What are the long term goals of the NLP?

Dr. R: To create heaven on earth.

A: The NLP is seen by some people as a private commercial concern. If that is the case, it will mean in effect the leaders of the country will run Victoria as a corporation.

Dr. R: Basically in this last election we were funded from our own pockets. The TM program did come to the party by teaching massive low cost programs of TM around the state at that time. It was a generous thing to do. It was also very good for them in the respect that many more people experienced first hand those benefits.

A: You had 300 candidates in the British elections and they all failed to get in. You had 32 in Victoria who also failed. It seems the NLP candidate wasn't swept into power in the US Presidential election.

Dr. R: Listen to this. In Australia, for 17 million people at 32 candidates we got the same number of votes as we got for 50 million and 300 candidates in Britain. So in our first election to our second election we improved tenfold. The number of votes was 50,000 (UK) and here it was 50,000 and the number of candidates was 300 and here it was 32. So per head of population we are doing ten times better for our second election. At that rate, by our fourth election we should be winning.

A: Will the total goal for all of this be to make the Maharishi Mahesh Yogi the leader of the world?

Dr. R: We should be so lucky. No, I think in that area he has always regarded himself as a kind of secretary. He has said "I am the secretary of pure knowledge". Basically he has something to say. If you don't ask him anything, he won't say anything. If you ask him, he reflects on what you say. And the way you work with a person of that calibre is to do what he says and see what happens. It's the wisest question you've asked because I think if the people of the world were wise enough to ask him to be, if he were to consent, that would be very

interesting. But I don't think it matters because probably there will ultimately be a single world government.

The Facts of the Case

The NLP in Victoria actually received 29,594 votes for the Legislative Assembly out of 2,353,894 votes counted. This contrasts with 92,703 for the growingly popular Informal party. Scientific testing puts this at around 1.2%. In the Legislative Council, the NLP figure was 13,708 from the 2,350,249 votes counted. Informal received a little more at 13,881. This puts the NLP percentage under 0.6. Dr. Byron Rigby stood for the seat of Coburg and scored 652 votes out of a possible 26,883 (2.4%). Informal came in with 1619.

Interviewed on the ABC after the election, a spokesman for the NLP was quite optimistic, claiming that the party had achieved up to 9% of the votes in some seats. As something of an amateur psephologist, I cast an analytical eye over the votes in the seats in which the NLP stood. Their candidates actually did achieve 9% in two seats and 7% in three others. Not bad you might think, for a brand new party, until you consider these relevant facts.

In each of these seats (all safe Liberal) the NLP candidate was the **only** minor party candidate and in three of them they also benefited from the 'donkey vote' (i.e. their candidate was at the top of the ballot paper). At the other end of the scale, in five seats where they were contesting for the 'protest vote' against two to eight other minor party or independent candidates, the NLP achieved only 0.4 – 1.7% of the vote. In the other 20 seats contested, the NLP got between 2% and 5%, hardly sufficient to make them a good bet to form the next government.

One thought that springs to mind from this interview is the possibility of a new issue joining the debates about the flag, the monarchy and our cultural identity, and that is a possible new name for our country. If the Natural Law Party were ever to be successful, my choice would be Cloud Cuckoo Land.

Finally, and probably luckily, it seems that Victoria's immense problems won't be solved by closing our eyes and meditating the TM way and watching our money disappear in other ways. While Dr. Rigby insists that the NLP has no affiliation whatsoever with the TM organisation, his answers in this interview show that one should be very skeptical about a lot of things to do with the Transcendental Meditation corporation.

Editor's Comment:

Yes, but what if we had a Labor Treasurer, a National Minister for Social Welfare, a Democrat Minister for Agriculture and a Liberal Minister for Industrial Relations? ■

Natural Health

Our trans-Tasman colleagues have caused quite a furore in the Shaky Isles by awarding their Bent Spoon for 1992 to *Consumer* magazine, the journal of the NZ Consumers' Institute.

A story by Vicki Hyde, the new President of NZCSICOP, in the September 1992 edition of the *New Zealand Skeptic*, tells that the July 1992 issue of *Consumer* published an article, "The Natural Way to Health – Your guide to acupuncture, osteopathy, homeopathy and other natural therapies", which presented an uncritical overview of 'natural' therapies, advising only that consumers ensure that their therapist was properly trained.

Responding to the award, executive director of the Consumers' Institute, David Russell is reported as calling NZ Skeptics "narrow minded bigots" and making the startling claim "In the 19th century, they would have been dismissing the discovery of penicillin because they did not have the evidence to prove it".

Now we Australian Skeptics may have differences with our NZ counterparts as to who is the world's greatest Rugby winger, or indeed on the correct way to pronounce 'six', but we are at one with them in the likelihood that we would also have been dubious about penicillin in the 19th century, given that Alexander Fleming did not isolate it until 1928.

If one is required to agree with unsubstantiated claims to avoid the charge of bigotry, then I guess I am a bigot along, I suspect, with most of our readers. **BW**

The Day America Told the Truth by James Patterson and Peter Kim (Plume 1992) analyses 2,000 Americans' answers to 1,800 questions on a variety of social, ethical and moral issues. Though it presents an interesting snapshot of contemporary American attitudes, it is not of particular interest to sceptics, but for a couple of findings: 45% believe that ghosts exist; 31% believe that some people have magical powers; 28% believe in witchcraft.

The most amusing statistic was where the respondents were asked to rank 73 occupations for honesty and integrity. The highest professions, (graded out of 4) were Fireman (3.07), Paramedic (3.02) and Farmer (3.00). The lowest three were Drug dealer (0.61), Organised crime boss (0.99) and TV evangelist (1.19). Personally, we think this is a little hard on organised crime bosses. ■

WHAT IF?

Adam, Eve and Thermodynamics

Ken Smith

One of the more frustrating things to come out of the creationist lobby is their erroneous appeal to thermodynamics in support of their opposition to evolution. No matter how many times it is carefully explained to them, they still insist that evolution cannot have occurred, since the second law of thermodynamics forbids any increase in the orderly structure of living organisms. They ignore our continued reiteration of the fact that the second law begins “In a closed system . . .”, and hence cannot be applied to places like the surface of the earth, which is continually receiving energy input from the sun.

This article, however, is not concerned with the relationship between thermodynamics and evolution — that has been adequately covered in a number of other places. It deals with the wider implications of the second law of thermodynamics, and the weird ideas creationists have about the origin of disorder in the universe.

Henry M. Morris is the guru of the creationist movement, and so we must accept anything he writes as being definitive for modern creationism. He blames all the disorder we see around us on Adam and Eve — it’s all due to sin. He writes this in many places, but perhaps most succinctly in a paragraph on page 38 of *The Remarkable Birth of Planet Earth*, where he claims:

“In the meantime, however, in so far as our present study is concerned, we can see now that the two basic laws of science, the First and Second Laws of Thermodynamics, are merely man’s scientific statements of the two revealed facts of: (1) a creation originally completed and now sustained by God’s power, and (2) the curse of decay and death, superimposed on the creation by its Creator because of man’s sin.”

On pages 17 and 18 of the same book, another paragraph spells out very clearly that Morris does not accept that the second law of thermodynamics was operating in the Garden of Eden. The whole paragraph reads:

“The answer can be only that the Second Law is a sort of intruder into the divine economy, not a part of either the original creation or God’s plan for His eternal kingdom. God’s description of the entire creation as ‘very good’ must tell us that at that time there was no disorder, no deterioration, no groaning and travailing, no suffering, and, above all, no death

in the whole universe, ‘the heavens and the earth, and all the host of them’ (Genesis 2:1).”

Morris seems to think that it is possible to change just one aspect of scientific knowledge, and leave the rest unaltered. In common with other creationists, he does not appreciate the unity of nearly all parts of science. The book *Fallacies of Creationism* by Willard Young (Detselig Enterprises Limited, Calgary, Alberta, 1985) contains a very brief section about the weird world we would have in the absence of the second law of thermodynamics. This article is an extension of Young’s ideas — other sceptics may wish to extend this to more areas of the fascinating world around us. It will become clear that the absence of the second law of thermodynamics provides solutions to some previously puzzling aspects of what happened (or didn’t happen) in the Garden of Eden. But just remember, you read it in *the Skeptic* first. Maybe you could even provide your friendly neighbourhood creationist with this new information.

Let us start with something familiar to nearly all of us — brakes on motor vehicles (though Adam and Eve do not appear to have had even a chariot). At the top of many long, steep hills there is a warning notice “Engage low gear”. Those who fail to heed this may find themselves in difficulties due to overheated brakes, and reduced efficiency (or, in the worst cases, complete failure) of the braking system. The energy of motion of the vehicle has to go somewhere, and friction between the brake pads and the disc (or the brake shoes and the drum) turns it into heat energy, which is of no further use. Normally this is dissipated into the air, but on a long, steep hill heat may build up and adversely affect the braking system.

This is the most obvious manifestation of the second law of thermodynamics in today’s world. Various forms of energy are transformed into heat, and gradually dissipated. Heat cannot be spontaneously changed into more useful forms of energy without most of the heat energy being degraded and becoming even less useful. Now imagine what would happen if the second law of thermodynamics was not operating. The energy involved in the motion of the car could not be turned into heat and dissipated. It would have to stay as energy of motion. This means that there could be no friction between the brake pads and the disc (or the brake shoes and the

drum). Now just a minute! Friction is a vital part of the way the world works! On a cold winter's morning I warm my hands by rubbing them together — if there wasn't any friction between the skin on my left hand and that on my right hand they would stay cold! And when I build a sand castle on the beach for my children (or grandchildren) friction between the grains of sand keeps it in shape. If there were no friction it would simply collapse. Even worse, there wouldn't be any sand on the beach — it would all have slid to the bottom of the sea. I wonder what the banks for the four rivers in the Garden of Eden were made of? Perhaps someone else could explain.

Friction is such a vital part of everyday experience that we would find a world without it almost magical. Walking would be impossible. The first time I went roller skating I spent most of the first hour sitting down. My feet kept flying out from under me, because of the very low friction forces with rollers between me and the floor. I found it a bit difficult to get moving. But if there were no friction at all, it wouldn't just be difficult, it would be impossible to start moving. Your feet would simply slide backwards every time you tried to move forward.

If there were no friction you wouldn't need oil in your car engine to lubricate the parts. But then your car wouldn't be able to take you from one place to another — the tyres couldn't get a grip on the road. But lack of friction would also provide an explanation for some creationist claims about the amount of water involved in Noah's flood. In their desperate attempts to provide a "scientific" justification for their religious ideas, we sometimes read that before the flood there were only very low hills, and no high mountains. Then only a relatively small amount of water would be needed to cover everything to the depth specified in Genesis. But if there were no friction between particles of soil or rocks, there could be no hills at all! The whole earth would be a perfect sphere. Thus if all the mountains were covered with fifteen cubits of water the amount of water in the present oceans would be quite enough. Getting complicated and interesting, isn't it?

This all-pervasive slipperiness due to lack of friction explains a minor problem about Adam's descendants. Why didn't Adam and Eve have any children before they were kicked out of the garden? They were told to "be fruitful and multiply" (*Genesis* 1:28) so presumably they attempted to produce progeny. Assuming their reproductive equipment was much the same as in human beings today (perhaps some creationist could enlighten us if this is in error) they would first have to get together. But whenever that randy Adam made a grab for Eve she would have slithered straight out of his hands. The proverbial eel would have nothing on the slipperiness

of Eve's skin. And it wouldn't help if Eve wanted to indulge in a bit of matrimonial fun, either. Adam would have been just as slippery as she was, and just as elusive in a clinch. It must have been quite frustrating for the pair of them. Maybe that's why Eve went off and talked to the snake. Remember, you read about this first in *the Skeptic*.

But before Eve appeared on the scene Adam was told that he could eat any of the fruit on the trees, except for the banned tree (*Genesis* 2:16,17). Let us assume that the fruit was, at least in general terms, like fruit today. There would, of course, be the difficulty that the fruit, like Eve, would have slipped right out of Adam's hands. But suppose that somehow this difficulty is overcome. Adam takes a bite out of a juicy peach, and swallows it. What happens then? Well, stupid, his digestive system takes over and turns it into stuff useful for his body! But here we have another problem. The peach is made up of cells, and our creationist friends keep telling us that a cell is wonderfully complex. Adam's body could only use the contents of a cell by breaking it down. But, if there is no second law of thermodynamics, complex things remain complex, and so the cells must remain unchanged. And even if this difficulty were overcome, breaking down the complex molecules inside the cell into smaller usable molecules and incorporating them into his body, would also be forbidden. Poor Adam! Maybe his digestive system was such that it absorbed the complete cells of the peach, and incorporated them into his bodily structure, so that in time he would become more and more like a peach. Eve could have called him "Peachy", and, of course, that is the origin of Eve's "peaches and cream" complexion which we see in so many creationist illustrations of the Garden of Eden. There is the further problem that the udders of all the cows would be far too slippery for any attempt at milking to be successful. But if that was managed, extracting the cream from the milk would be a trivial problem. Without the second law of thermodynamics the cream would not form an emulsion with the rest of the milk, but would immediately float to the top for easy collection.

There is another problem associated with Adam and Eve eating fruit. Henry M. Morris assures us that there was no death before man's sin. But isn't fruit alive? On any reasonable definition trees (and everything on them) are living organisms. So eating fruit leads inevitably to the death of the fruit. Something is funny, somewhere. Or, and say this very quietly, is it just possible that Morris may be mistaken in his interpretation of the Bible?

Let us pass on to another topic — noise pollution. We are assured that in the Garden of Eden everything was perfect. But it must have been a very noisy place. In

today's world any sound eventually dies away, as the energy of the vibrations is gradually turned into heat in the air, and is no longer available — this is the second law of thermodynamics in operation again. But if this conversion from sound energy to heat energy is forbidden, sounds will remain, and every time Adam called to Eve he would add more noise to the already noisy environment. To this we can add the trumpeting of the elephants and dinosaurs as they, too, went about the frustrating business of trying to “be fruitful and multiply”. Just imagine what it would be like if all the sounds made from 4004 BC to the present day were still audible! We should be thankful that the second law of thermodynamics saves us all from being deafened.

There are many other topics which could be taken up, but I'll limit myself to just one more. Henry M. Morris doesn't seem to have realised that he has provided an explanation for the apparent ignorance Adam and Eve showed about clothes — they didn't realise they were naked until after they ate the forbidden fruit. Now I don't know about other sceptics, but certainly whenever I look at my wife I know immediately whether she is wearing clothes or not. Why didn't Adam have this useful facility? It comes back, again, to the second law of thermodynamics. Light is yet another form of energy. When light falls on an object, some of it is reflected and some of it is absorbed. The absorbed part of the energy is turned into heat, and becomes unavailable for useful work. The reflected part is what we see. Now if the second law of thermodynamics were not operating we could not have this conversion into (relatively) useless heat. In other words, all the light falling on an object would be reflected. Nothing startling in that, you say? Ah, but we distinguish many things by their colours — green leaves, orange carrots, my wife's pale pink skin which turns bright red when exposed to too much sunlight — or their brightness — on a bright summer day it's much easier to walk barefoot on a beach, where the sand reflects most of the light, than on an asphalt road, which turns most of the light falling on it into heat.

Leaves appear green because the dominant part of the reflected light is green, with the red and blue parts of the spectrum absorbed. If all the light were to be reflected, leaves and carrots and the grey striped shirt I am wearing at the moment would all appear white, the same colour as the surface of the sun; we can distinguish between a cement path and the grass alongside it by its brightness, as well as by colour. So when Adam looked at Eve she seemed to be the same colour as everything else. In fact, since she would have looked just as bright

as everything else, Adam wouldn't have been able to distinguish her from whatever background scenery there was in the garden. So when he exclaimed, in delight, “Bone of my bone, and flesh of my flesh”, he probably was speaking about how she felt to his sense of touch — he certainly couldn't see her bones! We can imagine him saying “If I push here, I can feel a bone, just like mine. And you've got a lovely slippery skin, just like mine. How about a kiss, darling?” and that's when he discovers that a slippery skin has drawbacks. According to Henry M. Morris, it wouldn't have been until after they ate the forbidden fruit that they were able to see each other, and realise they were naked — but since this is a respectable family magazine, we will draw a discrete veil over what may have happened then. But remember, you read about it first in *the Skeptic*.

I haven't even mentioned some of the other weird phenomena we would experience in a world in which the second law of thermodynamics was inoperative. Somebody may like to take up the status of United Nations peace keeping forces — warring parties couldn't throw stones at each other since they couldn't hold them in the first place; weapons which relied on chemical explosives wouldn't work; and of course no nuclear reactions of any sort could take place, so the massive nuclear arsenals of the world would be useless. And if the parties to a dispute sat down at a negotiating table (which would be a very peculiar table, since neither nails nor screws could be used to hold things together in the absence of friction, and the chemical reactions involved in the setting of glue wouldn't work) they would promptly slide off and finish up on the ground — which would be quite level, so at long last we would have the much touted “level playing field”.

All in all, it seems that Henry M. Morris has not thought out the consequences of his claim that the second law of thermodynamics only came into operation after Adam and Eve sinned. As in so many of his other writings, he shows a lamentable lack of knowledge about science, to say nothing of the way he continually confuses science and religion. Living in the Garden of Eden, as envisaged by Morris, would appear to be more like living in a world ruled by magic rather than in one governed by orderly laws. But then so much of creationist writing appeals to miracles when they can't find a scientific explanation that I suppose we must accept that they want the same to hold in the Garden of Eden. But as for me, I prefer a world in which the second law of thermodynamics ensures that I can see what my wife is wearing, that my digestive system works, and that the brakes on my car work, even if it also ensures that the body is slowly rusting away. ■

INVESTIGATION

Astrology Today (or perhaps Manana)

Harry Edwards

Early in 1992 advertisements appeared in newspapers across Australia under the heading *ASTROLOGY TODAY*, offering free horoscopes. Being of the opinion that there are not that many philanthropists throwing money around during the recession we had to have, I surmised that the bait would contain a hidden hook. Curiosity got the better of me, however, and keen to get my fair share of something for nothing, I wrote six letters to the advertiser, using different names and addresses.

Back came a metre long computer print-out horoscope containing more meaningless (to the lay person) astrological data than the walls in the Great Pyramid, together with a few general and ambiguous lines regarding one's alleged character. My five cohorts received similar print-outs.

So far, so good. Then, a few weeks later, we all received a long "personal, private and confidential" follow-up letter from Mr Ray Hastings-Clarke, *Astrology Today's* Director of Astrological Research. The letters were identical in every respect, except for the date and the names and addresses.

Beneath my sceptical casing must lurk a vulnerable soft spot. Rarely have I been approached by such honesty, sincerity, warmth and concern for my well being and, by the time I finished reading the letter, my faith in humanity was all but restored. Let me share some extracts with you, to the strains of The Platters singing 'Only You'. (Italics throughout are mine.)

I wrote to you some time ago about your very exciting horoscope and strongly recommended that you have a more fully detailed transit report plotted for you personally...you know Mr Edwards I have become so familiar with certain horoscopes of special promise such as your own (*and the other five?*) that I often feel as though I am reading the horoscope of a close friend, and I become quite concerned when I see either troublesome events on the horizon or, perhaps even more importantly, wonderful opportunities that you may not yet have achieved. (*Usual ploy – instil fear or create a need, then offer a solution or appeal to greed.*)

...planetary transits as favourable as yours (*and*

however many others received the same letter?) only last a year or so at the most and I am very concerned that you may miss the bus on a once in a lifetime opportunity. (Hurry, or you'll miss out!) For this reason I have made a special effort to select for you a most powerful crystal talisman to give you that extra help. This talisman is my special free gift to you when you order your full horoscope. (*The hook in the bait!*)

My recent re-examination of your chart has convinced me that the time is right to share with you (*and the rest*) a secret that has not only changed my life but has also given new vitality to the lives of a small group of others (*six out of six in my case – how lucky can you be?*)... I strongly feel that this secret will be of great benefit to you too. (*Oh! The suspense.*)

I see that you are a person who deserves a better deal in life (*he's right there*) and I feel duty bound to leave no stone unturned in helping you to achieve the wonderful promise of your true astrological potential (*a friend indeed, even if one addicted to the cliché*) ... and I am going to offer you that help right now. (*Ta*)

Now, at this point I tend to hesitate; should I go on and give this secret away to hundreds of undeserving sceptics or keep it all to myself? After all, this is "personal, private and confidential" to all of Mr Hastings-Clarke's clients. Oh well, here goes.

The secret I want to share with you Mr Edwards (*Ms Williams, Mrs Brown, Mr Smith, et al*) is the recently rediscovered crystal of the Incas (*and I didn't even know it was lost*), a rare talisman (*so rare he can give them away by the bucketful*) of great good fortune previously only known to the ancient rulers of the great Inca Empire of golden magnificence ... Modern scientists (*unnamed*) have long known that they attributed their great (*he's a great one for superlatives*) good fortune as well as the good health and wellbeing of their people to the wonderful power of a strange crystal talisman each of them wore. These mystical crystal talismans

actually seemed to enhance their owners' natural energy, giving them a special ability to succeed beyond their wildest dreams ... (*Which no doubt accounts for the severe thrashing they administered to the Spanish XI under the captaincy of Pizarro in a home game!*)

Now modern scientific research has confirmed that the (*undefined*) powers attributed to these crystals by the Inca are in fact not just superstitious mumbo-jumbo but do in fact have a very solid scientific base. (*Now there's some modern scientific research I must have missed.*) University (*unnamed*) research published (*where?*) in 1990 has confirmed that the Inca crystal gives off dynamic electromagnetic energy waves creating a strong beneficial force field that enhances the user's own natural ability to attract great good fortune to themselves. (*Some force field. My letter to Mr Hastings-Clarke requesting the names of the university, researcher and publication elicited no reply.*)

And so it goes on and on:

... the Incas made the crystals really potent, to unleash their maximum power ... a secret method of cutting and tuning known only to them (*and Mr H-C?*) ... only a precious few crystals available from the remote Brazilian caves of Pachucuti ... a beautiful crystal picked out especially for you Mr Edwards (*how the ancient Incas knew how to tune a crystal just for me, or the other five, is not explained*) ... prepared in accordance with the ancient formula (*a formula recorded on a knotted string quipu must have taken a bit of deciphering*) ... harmonic balance ... power of potent astrological aspects ... energy field aligned to your star chart ... happiness, harmony, wellbeing, etc etc.

Fill in the questionnaire and a 30 page fully detailed horoscope for a special price of \$25.00 plus \$2.00 postage (normally \$37.00) and a free Inca crystal (usually \$40.00) will be in your hands within two weeks.

The ballpoint hovered over my chequebook as I teetered on the brink, the rag in a tug-o-war between scepticism and credulity. Could I survive without the Inca crystal? I decided I could, and filed the missive. What will power!

Three weeks later six identical "personal, private and confidential" letters arrived from Mr Hastings-Clarke, lamenting that I (we) may lose my (our) specially selected free Inca Power Crystal(s) and increasing the free offer to include a Crystal Pyramid of Wealth (usually \$35.00) which "amplifies the electromagnetic energy

of a body's personal aura", a book of Lucky Lotto numbers (normally \$18.00) and a book entitled *The 5 Minute Miracle*, "a secret that could change your life forever". A whole \$109.00 worth, for only \$27.00. Furthermore, the purchase is covered by an immediate full money back guarantee if not fully satisfied.

The pitch concluded, "I want you to have every chance to collect your own personal horoscope and Inca Power Crystal before I have to return your Crystal to Brazil where it will be lost to you forever". (With each letter came a photograph of a quartz crystal pointing to a roughly cut out natal chart. Three of the charts were identical.)

That did it, I couldn't afford to miss a bargain like that, so order form completed, cheque signed and into the post. The date was May 30. The cheque was deposited on June 1. The following correspondence ensued:

June 30. Letter to Mr Hastings-Clarke asking for my horoscope and gifts. (Deliver within two weeks remember). No response.

July 11. Letter to Mr H-C requesting the goods within seven days or my money back and expressing my difficulty in reconciling the delay with his expressed concern in his personal letters. No response.

July 17. Letter to Dept of Business and Consumer Affairs inquiring whether any complaints had been received about Mr H-C or *Astrology Today*. Phone acknowledgement.

July 19. Letter to Mr H-C informing him that failure to return my money would result in a formal complaint to BCA Dept. No response.

July 27. Formal complaint lodged with BCA, making it (unofficially, as they are not permitted to give out the information) the **81st** complaint about this organisation. The pace then quickened; there were numerous phone calls, a Fax from BCA to *Astrology Today*, met with the excuse that they were three months behind in their orders.

August 19. I receive a refund cheque.

It is curious that Mr H-C persisted with follow-up letters when he was so far behind with his orders, unless of course there was no intention of fulfilling them.

August 31. 13 weeks after sending my payment and two weeks after receiving a refund, I received my horoscope and Free Gifts. Perhaps Mr H-C is a philanthropist after all.

The horoscope was a computer print-out; the Lucky Lotto was a sheet of random numbers; the Pyramid of Wealth was a multifaceted piece of red moulded

substance (not a pyramid); *The 5 Minute Miracle* consisted of 1300 words about “Creative Visualisation” printed on five cards; and the mysterious Inca Crystal looked like a rough-cut piece of quartz, with as much kick as a cane toad who had come second best to a steam roller.

However, first impressions can be deceptive and, as a sceptical investigator, I suspended judgment until I could seek professional advice. I forwarded the ‘crystal’ and the ‘pyramid’ to Professor Ian Plimer, Head of the School of Earth Sciences at Melbourne University.

His report:

Under a scanning electron microscope and an electron microprobe the \$35.00 Pyramid of Wealth was shown to be costume jewellery, probably from Taiwan or Korea and valued at most at a few cents.

Being of quartz, the most common mineral on the surface of the Earth, the origin of the ‘Inca’ crystal was difficult to determine. It was, however, an inferior specimen containing inclusions, had poorly striated faces and was deformed and fractured (*Ideally suited to you Harry, I would have thought. Ed*). Value? “Less than an ice cream.”

Prof Plimer added that superb museum specimens of quartz come from South America and are quite distinctive. Abundant supplies can also be found in the New England area of NSW.

Summary

The following facts are relevant.

The horoscope gave no sign of being the “personal” work of Mr Hastings-Clarke, nor would it require deep astrological knowledge to produce. Many over-the-counter computerised astrology programmes would produce a similar result.

The delivery took 13 weeks, against the two weeks specified in the letters.

Goods ready for dispatch and orders backing up for three months indicate a thriving business.

Enquiries regarding non-delivery were ignored. Bad business practice.

The “money back guarantee if not fully satisfied” is problematical if one doesn’t have the goods to test for satisfaction.

More than eighty complaints to Business and Consumer Affairs indicates a lot of unhappy customers. It would be interesting to discover what percentage of dissatisfied customers would go to this trouble to recover \$27.

Another client who complained to both BCA and the

Australian Taxation Office received both the goods and a refund also. This says little for the quality of *Astrology Today’s* book keeping department.

This client received a chart which read, in part “you have great happiness in store for both you and someone you care about”. An 80 year old, he was still grieving the recent loss of his wife. Sending ambiguous, all purpose charts really can lead to tragic effects and should be discouraged.

There are some fundamental questions the credulous should ask when confronted by offers like those made by *Astrology Today*. How much does a “free” gift cost? How much is it worth? What evidence is offered to support the claims made? How can a genuine business give away \$109.00 worth of “free” gifts for a total of \$27 including postage and packing?

And if Mr Hastings-Clarke really believes that a piece of common quartz, Brazilian or otherwise, can be tuned to one’s star chart, bringing with it “awesome powers”, why doesn’t he tune his entire stock of Inca Crystals to his own chart and sit on them? It would save all that overtime catching up on back orders.

Conclusion

Ignoring all the obvious crap about the Incas and mysterious powers emanating from common quartz, we must ask, is this a con or is Mr Hastings-Clarke just a hopeless businessman?

There is no evidence that astrology can do what its proponents claim for it.

How genuine is a business which sends identical “personal” letters to several different people?

Such phrases as “My recent re-examination of your chart has convinced me that the time is right to share with you...” give the impression that a real live astrologer has examined your chart. The fact that several people get the same come-on destroys that impression.

Requests for supporting evidence for extraordinary claims are ignored.

Regardless of whether the business is genuine or not, if goods are not delivered on time and if requests for delivery or “guaranteed” refunds are not acted upon until representations are made by the Department of Business and Consumer Affairs, then people should be very wary of doing business with this organisation.

Finally, to give credit where it is due, if for nothing else, Mr Ray Hastings-Clarke deserves a medal for tenacity. On September 14, after receiving both a refund and the goods, I received yet another follow-up letter, in similar terms to the others, this time offering me my horoscope for just \$16.00. ■

CONSPIRACY

The Paranoid Style in Creationism

Peter Henderson

The paranoiac is the victim of foul wrong, he is proud, defiant and self-centred.

Thomas C. Allbutt, 1899.¹

When Ronald Reagan, as President of the United States, gave his blessings to the teaching of creation in American schools² it seemed that Creationism had found a respect denied it since the Scopes trial of 1925. The popular view of Scopes has long been that the trial marked the end of the creationist model as anything but the preserve of a few religious fanatics. Such an interpretation does not withstand critical examination. Whilst creationist thinking may have lost popular support for a while in America it has been sustained and nourished by fundamentalist groups. In that country in particular it is now a formidable force. With the predominant position of the United States as an exporter of culture and ideas the impact of American Creationists on similar bodies in Australia should be noted.

Models of the origin of the Earth that require the intervention of a deity and occasionally that deity's ongoing intercessions are not confined to Christianity. Within Christianity the importance of an interventionist deity in the creation of Earth is most notable amongst some Protestant groups, although splinter groupings like the Mormons also hold the *Genesis* account to be factual. What has characterised the recent development of Creation 'Science' is the vigour with which it has been presented and its central position as a part of a whole world view.

Creation 'Science' or Creationism is central to the Christian fundamentalist belief system. Fundamentalism, both as a religious and political force, has given Creationism much of its energy and imparted its own militancy. A belief in creation is presented as concomitant with a true belief in God and a Christian lifestyle. One of the founders of the US-based Institute for Creation Research, a founding member of the Moral Majority and prolific author, Tim LaHaye said:

The theory of evolution is the philosophical foundation for all secular thought today It is the platform from which socialism, communism, humanism, determinism, and one-worldism have been launched.³

LaHaye's quote illustrates one striking feature of much creationist material. The resort to unsubstantiated, overblown statements linking evolutionary thought with forces deemed hostile to the fundamentalist creed. In short, the paranoid style in creationism. Richard Hofstadter's important study "Paranoid Style in American Politics" explores the conspiratorial mindset among those on the right wing of politics who attempt to portray history as a giant conspiracy. Hofstadter called it the paranoid style 'because no other word adequately evokes the qualities of heated exaggeration, suspiciousness, and conspiratorial fantasy'.⁴ The use of the term 'paranoid style' in the title of this article is deliberate. Conspiracy, exaggeration and suspicion are employed by Creationists to further their political, ideological and religious cause. Just as their science is flawed, their ideas of history, politics and human nature are equally defective.

Those who hold a fundamentalist view of biblical inerrancy are unlikely to be swayed by evolutionary science. Despite what should be a comfortably secure position amongst their fellow true believers, Creationists continue to attempt to smear anybody who does not share their views, by linking them with ideas and movements the Creationists deem unacceptable.

In the published report of the Festival of Light's education seminar on the teaching of creation in schools one of the participants, John Heininger, revels in this practice of smear.⁵ Heininger is most interested in linking the Australian Skeptics with the humanist movement. Without providing the slightest evidence for his claims Heininger then follows the usual fundamentalist path of linking humanism with communism and other *betes noire* of the religious right, such as abortion, children's rights, homosexuality, pornography and the like.⁶

The threat of any or all of the above would doubtless alarm a Festival of Light audience though the question should be asked: Where is Heininger's extensive evidence as the introduction to his article claims? In one example Heininger states that:

"S.J. Gould, who while not admitting to be a Marxist, once stated that he 'learned his Marxism', literally at his Daddy's knee".⁷

What is interesting here is first that Heininger does

not give any reference for his allegation, second he does not state what implication this has for Gould's professional work or third what relevance it has at all concerning evolution. What it does reveal is that Heininger is opposed to Marxism and that he believes that humanists and Australian Skeptics, among others, are trying to destroy Judeo-Christian society.⁸

Heininger seems to follow the tactics of people like Tim LaHaye, quoted above and other Christian polemicists like Francis Schaeffer. If evolution is seen as being bad then it must follow that it is linked with everything else that is bad. LaHaye, something of a guru among fundamentalists, is particularly prone to this kind of practice. In a book on homosexuality he states:

"Almost every homosexual I have counseled or studied has been an early and heavy masturbator. In fact, masturbation seems to be the first sexual step towards homosexuality".⁹

LaHaye dislikes homosexuality and masturbation and together they go.

Creationism forms an important part of the wider fundamentalist world view. In particular its desire to form a society based on its own narrow conceptions of biblical revelation. Put creation in the schools, take sex off the television and we can ban abortion, rid the world of homosexuals, etc. This view not only denies any plurality of experience or diversity within a culture but unfortunately it is one commonly taken up by the extreme right. Organisations like the Festival of Light or the Moral Majority would doubtless see themselves as conservative groups committed to family values. This is debatable, though what is clear is that a great deal of their rhetoric has and is being used by those of the far right.

Evangelistic Literature Enterprises, a Queensland based Baptist group, publishes a series of American comic book tracts that usually are directed against Catholics. The general thrust of these *Chick Tracts* might be best summed up as vitriolic. One portrays a university lecturer who attempts to 'push' evolution down the throats of his students until a young, handsome, evangelist disabuses him of the veracity of evolution.¹⁰ These comics are always crude, with opponents of Chick's own religious bigotry drawn as vulgar, coarse caricatures blindly pushing some ideological viewpoint. What is most disturbing is their appeal to the young and gullible.

The League of Rights, perhaps the best known of Australia's right wing racist groups, also espouses an anti-evolution line. Through its Heritage bookshops it distributes books such as, *The Evolution Hoax Exposed*

(Former Title: *Why Colleges Breed Communists*) as part of its own campaign to inculcate 'Christian' values. The book's fascination to the League of Rights may be its decided anti-Semitic bent, though it is interesting that such a book, first published in 1941, still continues to be sold.

A Sydney based conspiracy theorist, Alan Gourley, promotes a belief similar to LaHaye's that evolution will eliminate 'the idea of good and evil', so allowing a socialist one world government.¹¹ The Citizen's Electoral Councils of Australia, which have links with the American neo-Nazi Lyndon LaRouche, have a belief in divine creation as a central policy in their organisation. Expatriate American UFO person, Stan Deyo, gives a few twists on creationism and manages to even estimate the number of people who lived in the Garden of Eden (up to 60,000,000) and manages to tie it all in with the Illuminati and other socialist menaces.¹²

A common theme running through the Festival of Light's speakers' papers is the idea that evolution is a plot begun by the dreaded and evil force of secular humanism. Heininger refers to US Supreme Court Justices and decisions which he dislikes as evidence of a plot by secular humanists to destroy conservative Christian values.¹³

In line with more extreme right wing groups and people who espouse the politics of paranoia or conspiracy, Heininger reduces the complex interplay of social, political and historical factors which help to shape institutions like the Supreme Court to a simplistic and unprovable plot of a sectional interest group to foist its attitudes and opinions on society at large. He also fails to grasp that the changing nature of that court under the Reagan and Bush administrations, to one now dominated by conservative justices, can be as disturbing to non-fundamentalist Christians (among others) as a liberal court was to those with Heininger's views.

'True' Christianity is identified as only compatible with conservatism, usually *laissez-faire* capitalism. Heininger and his ilk fail to know or comprehend some of the historical links between socialism and Christianity as exemplified by the English historian R.H. Tawney. Similarly the use of evolution to underpin capitalism in the ideas of 'Social Darwinism' that were espoused by people such as Herbert Spencer and William Graham Sumner in the last century are conveniently overlooked. The peculiar brand of Christianity that is espoused in this country by the Festival of Light and organisations to the right of it politically deny any plurality in Christian thinking. The issue is cut and dried, the Bible is inerrant and their interpretation absolute. Readers of *the Skeptic*

will be familiar with the organisations within Australia specifically concerned to propagate the creationist message such as the Creation Science Foundation. There are many other groups, church, para-church and political, that also view evolution as a plot. Some of these groups are best described as belonging to the lunar right.

This article does not intend to be an exhaustive overview of creationist groups in Australia - which would in any case be nearly impossible. They range from tiny independent Christian schools and 'End-Time' churches through to some of the larger denominations like the Pentecostal Churches and many Baptists. Then to the racist Right and groups like the ultra-racist (and in America often violent) Christian Identity movement.

It has been the intention to show the paranoid mind set of many creationists. It is not simply a case of refuting their science but also of the other wide-spread assumptions of fundamentalists. Whilst Creationists like to portray themselves as seekers of truth they seem to resort inevitably to conspiratorial fantasises to supplement their cause and in the process prostitute not only science but also the humanities. Evolution is a humanist/communist plot, pop music is Satanic, abortion is murder, etc. What is most disturbing is the education of children in some churches and 'Christian' schools around the country, who will be inculcated with prejudices not only against science but also the morals and politics of anybody who believes in evolution or disagrees with fundamentalist theology. In short, the opportunity for meaningful dialogue is almost non-existent and the mind set of the growing number of fundamentalists firmly turned from seeking or being able to seek any rapprochement or accommodation with secular society.

Notes:

1. Cited in the *Oxford English Dictionary*.
2. Eugene F Provenzo, Jr, *Religious Fundamentalism and American Education: The Battle for the Public Schools*, State University of New York Press, New York, 1990, p xi.
3. In Henry M Morris, *The Troubled Waters of Evolution*, Creation-Life Publishers, San Diego, 1975, p 5.
4. Richard Hofstadter, *The Paranoid Style in American Politics and Other Essays*, Jonathon Cape, London, 1966, p 3.
5. John Heining, *The Anti-Creation Lobby - The Untold Story and Creation and the US Supreme Court in Education Seminar: Should Creation be Taught in Schools*, Parents Federation for Quality Education, Sydney, 1992. Both these articles are copies of articles by Heining in *Creation Ex Nihilo* editions Vol 12, No 1 and Vol 13, No 3. The following citations are the same for both the Festival of Light and *Creation Ex Nihilo* sources.
6. Heining, p 17.
7. Heining, p 17.
8. Heining, p 17.
9. Tim LaHaye, *What Everyone Should Know About Homosexuality*, Tyndale House Publishers, Wheaton, Illinois, p 81.
10. J T Chick, *Big Daddy?*, Evangelistic Literature Enterprise, Strathpine Queensland.
11. Alan Gourlay, *How to Avoid the Looming Catastrophe*, The Survival Association, 1985, p 30.
12. Stan and Louise Deyo, *The Cosmic Conspiracy*, West Australian Texas Trading, Perth, 1980, p 113.
13. Heining, pp 32-36. ■

Apology

We owe a grovelling apology to all our readers for an egregious error printed in our last issue. Referring to the Happy Birthday Earth Dinners held on October 23, we said that this date would be the 5,996th birthday of the Earth. Thanks to the eagle-eyed vigilance of a reader, we can now confidently state that it is only the 5,995th birthday. You see, there was no year 0, so 24 October, 1 BCE to 23 October, 1 CE is only one year and 4004 BCE to 1992 CE is only 5,995 years.

We are extremely grateful to Peter Macinnis for bringing this to our attention. ■

WHAT IF?

Life in the Null Zone

Andrew Parle

The solar system is allegedly about to pass (or has passed) into the Null Zone, a volume of space where the electro-magnetic force (one of the four natural forces) is suppressed (see “Phony Photon Belt Goes Phut”, *the Skeptic* Vol 12, No 3). As a public service, this paper will describe what we may all expect so that we can tell when it happens, as it would be a great shame to miss such a singular event. For quick reference, there is an appendix listing the major features of the Null Zone. Cut it out and stick it on your fridge, although not with a magnet (see below).

First, the appearance of the Null Zone itself. We are not informed as to its colour, shape or size, but we may be certain that it cannot be invisible. This is because light, as an electro-magnetic phenomenon, obviously cannot pass through the Null Zone, and so at the very least it will occlude any stars or galaxies which happen to be on the far side. If it does not emit any light, it would look like a solid patch of black, growing in apparent size as it approaches. However, there are theoretical reasons to expect it to be surrounded by a faint halo of red light (see below). Watch the skies – I’m sure we will see it any night now.

Now, what is life going to be like while we are in the Null Zone? For one thing, it’s going to be pretty black, as light, radiant heat, ultra-violet, etc will not exist. This has its good side, however, as we will all be safe from sun-burn and gammarays while we are in the Null Zone – but it would be a good idea not to break any bones at this time (or any time, for that matter), as there will be no X-rays either.

It will also be nice and quiet, as electrostatic repulsion, being the thing which stops atoms and molecules from bumping into one another, is responsible for the propagation of vibrations in solids, liquids and gases - in other words, sound.

If the Olympic Games are still going on, we won’t see much on television with no light or sound. If you are sports mad, this is going to be a Bad Thing, but on the other hand, we will be spared all the nightly bad news about the deficit, unemployment, etc. But this hardly matters when you realise that anything that relies on electricity or magnetism will no longer work. If we

could hear anything, one thing we might hear would be an almighty crash as millions and millions of little magnets stuck to fridge doors (average 5.3 per fridge in the last census) fall off and hit the floor. Those of us who use fridge magnets as our principal method of filing will be in big trouble.

The wider ramifications get a bit more serious, however. The electro-magnetic force is responsible for keeping electrons attached to atoms and molecules, and hence for all chemistry. Stopping all chemical reactions is likely to have a severely depressing effect on the economy, but not to worry, as that includes all chemical reactions within the human body, we will all be dead before you can say Dow Jones Industrial Average. But this doesn’t matter, as no-one would be able to hear you or even read your lips (as it is dark and silent).

These electrons, no longer subject to the attraction of the atomic nucleus, but still possessing a fair amount of kinetic energy, will stop orbiting and go haring off into the never-never in graceful hyperbolic orbits (still being subject to the force of gravity). In space, this will cause the Null Zone to be surrounded by a cloud of electrons stripped from atomic hydrogen (leading to the red light mentioned above). On Earth – or perhaps, it would be more accurate to say “in the vicinity of where the Earth used to be” – there will be a cloud consisting of electrons and various atomic nuclei, with the average velocity of the former being a few orders of magnitude higher than the latter. With no electric charge, these will barely interact with each other and will most likely just orbit around their common gravitational centre, although many electrons will have sufficient velocity to escape entirely.

It is not entirely clear if the electro-weak reactions (principally responsible for beta decay and so forth) will be affected by the suppression of the electro-magnetic force, but it is simplest to assume that they will be almost entirely non-existent. Other nuclear reactions are unaffected. However, as the electro-static repulsion of nuclei no longer exists, all nuclear reactions (particularly involving the strong force) may be expected to take place at any temperature at all, instead of being restricted to temperatures found only in the core of the sun. On the

other hand, even if the electro-magnetic or electro-weak forces are not involved, gamma-rays are frequently emitted in nuclear reactions purely to permit energy and momentum to be conserved. Exactly what might occur gets a bit speculative at this point, as we have already negated much of most of modern physics, but I would hazard a guess that this would create a number of new and exotic nuclear species which would then slowly decay via the gravitational force, emitting gravitons in the process. Alternatively, these nuclei may decay via some new pathway using the strong force, which would be as rapid as occurs in a nuclear explosion.

As nuclear reactions, albeit of new and exotic kinds, become possible at low temperature, the limiting factor is going to be the density. Probably the Earth's density is too low to sustain significant reaction rates. In such a case, the Earth will become a hazy cloud of electrons surrounding a denser cloud of nuclei, all bound together by gravity. Similar effects might be expected to occur for all planets, but the sun is a special case because of its massive gravitational field, as well as the high temperature and density. The core temperature is high enough so that all particles will have sufficient thermal velocity to escape, while the outer envelope probably doesn't. On the other hand, densities throughout the sun are high enough so that a high rate of nuclear reactions will occur (as indeed, they do at the moment).

I see two possibilities. If only gravitational reactions (which are slow) can occur, then the outer layers of the sun will collapse to form something similar to a neutron

star (except composed mostly of protons and other nuclei), while the inner core will escape outwards in all directions – a sort of inverse nova event. If strong force reactions can occur, with their usual high reaction rates and energy yields, we will get an explosion on a super-nova scale but without the usual emitted light and heat.

Certainly, there will be a lot of interesting physics in the result. With a bit of luck, the sun will be engulfed before the Earth which will permit verification of the theory, although not, perhaps, time to publish the results.

Null Zone Statistics

Population.

None. Oh, there will be a lot of nuclei of various sorts, and even some of the slower electrons, but people?

Forget it.

Language.

None. See above. Even if there were any people, they wouldn't be able to make any sounds or even use sign language.

Climate.

None. With no sun, you haven't got a climate.

Geographical features.

None. No planet either.

Currency.

None. Likewise there will be no economy, no visa restrictions, no exotic tourist destinations, no primary exports, and no recommended vaccinations. Prebooked accommodations are not only impossible, but absurd. ■

Court Win for US Skeptics

Readers may be aware of a lawsuit instituted by self-proclaimed psychic Uri Geller against James Randi, alleging defamation by Randi in statements reported in the *International Herald Tribune*. In this case, CSICOP was named by Geller as a co-defendant.

A US federal court in Washington DC has thrown out the case against CSICOP and has authorised the imposition of monetary sanctions against Geller, pursuant to a court rule that mandates the imposition of sanctions if litigation is “interposed for any improper purpose such as to harass or cause unnecessary delay or needless increase in the cost of litigation”, or if papers filed with the court are not “to the best of the signer's knowledge, information and belief formed after reasonable inquiry ... well grounded in fact ... and

warranted by existing law or a good faith argument for the extension, modification, or reversal of existing law”.

Speaking after the order of the court was known, CSICOP Chairman Paul Kurtz said “This type of libel suit, even if ultimately unsuccessful, threatens to chill debate on scientific issues. If such obstacles as these are placed, unchecked, in the way of scientific research, and if one cannot question extraordinary claims, then a serious blow will be dealt to to freedom of expression and of scientific inquiry.” Kurtz went on to comment that the judge's decisions to impose sanctions against Geller “sends a stern warning to those who would use libel laws as a weapon to harass; such conduct can carry a heavy penalty.” ■

POP CULTURE

Into the Darkness ...?

Greg Czechura

There is an old, old saying (referring to classical music if memory serves me well) which says something to the effect that the best music belongs to the Devil. These sentiments may strike a chord (pardon) in connection with the current so-called debate over Satanic and Occult influences in Heavy Metal music. Some things never change!

Concern about Heavy Metal (HM) seems to cover a number of rather disparate issues. A few of these include:

- subject matter - especially where Satanic or Occult subjects, violence and drugs are concerned;
- violence-inducing beat
- inducement to anti-social behaviour;
- sexism and sexual exploitation;
- back masking and anti-social subliminal messages;
- allegations that HM draws youth into an international Satanic conspiracy; and
- HM deliberately undermines social values.

Objections to HM are regularly raised in the sensationalist tabloids, but often appear featured in the wider print and electronic media, for example, when there are suggestions of a link with teenage suicide. The purported connection between suicide and listening to Heavy Metal has reached international prominence with the (unsuccessful) trial in the US of British band *Judas Priest* and the forthcoming trial of performer Ozzy Osbourne. The “dangers” and “excesses” of HM are the subjects of a number of books, including:

Aranza, Jacob *Backward Masking Unmasked* (Huntingdon House, 1983)

Godwin, Jeff *The Devil's Disciples: The Truth About Rock* (Chick Publications, 1985)

Pulling, Patricia *The Devil's Web* (Huntingdon House, 1989)

Raschke, Carl *Painted Black* (Harper & Row, 1990)

For these authors, HM is not a symptom of our times, rather it is a major contributor to many social ills. Dark and Gothic imagery in HM is there to prepare us for some sort of Age of Darkness. It is not always clear what Reschke, Pulling, *et al* mean by HM, despite their often quite extraordinary claims. Indeed, one may be forgiven for suspecting that their definition simply

covers those rock acts that they happen to disapprove of.

Their responses to the problems that they identify is to advocate measures such as strict censorship. Furthermore, their arguments have been translated into demands that the presence of HM albums and accoutrements be used as definitive evidence of “Satanic or Occult crime” and, as such, be used as evidence in criminal cases (see also Hicks, Robert *In Pursuit of Satan* Prometheus, 1991).

There is insufficient time or space to devote to all of the issues raised by these authors and their supporters, beyond noting that much of their case has been built on generalities about an apparently unusual and monolithic form of music.

What is Heavy Metal?

Heavy Metal is broadly definable as a form of Rock Music. Beyond this point the genre is actually extremely difficult, if not impossible, to categorise. Neil Jeffries in his introduction to the *Music Master Heavy Metal Catalogue* (John Humphries, 1990) has this to say:

“Heavy Metal is all things to all people. To some it is the sound of the damned screaming in hell. To others it is the sound of their parents screaming in desperation. To a few it's the sound of their neighbours ‘just dropping by’ with a 16lb sledge hammer to make some fine-tuning adjustments to the volume knob of their hi-fi...

“Its variations are almost as numerous as the acts: Heavy, Hard, Progressive, Prog, Pomp or Techno Rock; Adult Oriented Rock (AOR); Soft or Wimp Rock; Thrash, Speed, Death, Grunge Metal; Hardcore, Grindcore ... even Punk! Glam Rock, Sleaze, Trash, or just plain old Rock ‘N’ Roll.”

And one can add Fusion, Crossover, Indie, Doom Metal, Dark Metal, Black Metal, and White Metal and others. The points to be made here are that HM is by no means monolithic in character and that the term is virtually meaningless because it does encompass such a wide variety of forms. One specialist music magazine recently suggested that the term Heavy Metal should be dropped because of its imprecision and the many negative connotations attached to its use (*Metal Hammer*, Feb 1992).

The Content of Heavy Metal

The diversity of HM is reflected in its content; war, sex, drugs, violence, love, motor cars, fantasy, science fiction, horror, Satan and for that matter Jesus, Odin and Thor are common themes. True, the way that some of these themes are explored and presented may disturb some listeners. Indeed, one does not really have to search for disturbing hidden messages. Overtly Satanic and Lovecraftian lyrics are a feature of bands like *Morbid Angel*, *Dark Throne*, *Beherit*, *Deicide* and *The Unleashed*. Their lyrics are invariably growled, rather than sung, over intense driving guitars and drums and, clearly, are not everyone's idea of easy listening. At the same time, bands such as England's *Cerebral Fix* provides very socially aware lyrics to their songs (and they are strongly anti-Satanic) in a format similar to the above bands (i.e. Death Metal). Then there are the very commercial, but highly superficial and sexist lyrics to be found in the material of bands like America's *Warrant*.

It is also quite wrong to regard HM as being obsessed with the darker side of human nature. *Dread Zeppelin* and the now infamous *Spinal Tap* are two of the better known satirical Metal bands. Even the more extreme types of Metal such as Thrash have managed to spawn less than serious examples such as *Lawnmower Deth* (who take the mickey out of Death, Thrash and even commercial Rock) and the German band *Tankard* who manage to write songs exclusively about beer, the drinking thereof and its after-effects.

Given this diversity of content, what makes the subject matter of HM different from other forms of music – including Classical, literature or film? Is it not a matter of personal choice as to what one listens to, reads or views? One may or may not like all of the offerings of Sweden's *Bathory* or one may prefer the older albums with their Satanic lyrics and covers, or the newer albums with their massive switch to Norse mythology. I think that even a brief investigation will reveal that there exist HM fans in all four categories.

This is an important point that Raschke, Pulling, Godwin and Aranza overlook, or quite deliberately avoid. For them, listening to HM can only result in particular, virtually predetermined outcomes – they argue that suicide and Satanic conspiracy are natural and significant outcomes for listeners. However, if one accepts that listener responses vary to this, or any other sort of music, then one must address individual problems. One must also accept that individual responses may be affected by other influences; home, school, drugs, unemployment and so on. Listening to *Slayer* may

be the only real pleasure that some unemployed and disadvantaged youth may ever experience.

Heavy Metal and Social Health

Pulling and others regard HM as a contributor to social and moral decline. The problem is that they regard the music as a cause and not a symptom of social problems. To the best of my knowledge, no one has examined the relationship, but an examination of lyrical content would suggest that the music (not surprisingly) often mirrors sentiments that are only reluctantly acknowledged (unemployment, violence, drugs, etc). The sentiments expressed by LA hardcore band *Body Count*, in their recent, highly controversial, debut album proved to be an all too accurate prediction of the riots there. Indeed, the existence of the anger that spilled onto the streets of Los Angeles has been readily apparent in a wide cross section of less commercial contemporary music.

One could well directly link the growth in popularity of the more extreme forms of the genre (Hardcore, Death Metal, Doom Metal, etc) to the growth in political uncertainty, unemployment, emergence of social underclasses, environmental degradation, etc. Death Metal, for instance, is as hugely popular among the youth of Eastern Europe and the former Soviet Union as it is with the disaffected youth of Western Europe.

For the majority, rebellion and disaffection will only ever be a symbolic act. Ever since *Black Sabbath* produced their first records in the late 1960s, the forms of music now known as HM have always provided very good visual symbols for youthful rebels. Black jeans, black T-shirts emblazoned with Gothic images, black leather jackets, pagan jewellery and long hair have served as potent statements of independence and rebellion.

Then there are those who simply like HM and/or its trappings *per se*.

Criminality and Heavy Metal

Such sociological and psychological investigations that have been conducted to date have failed to detect any linkage between listening to HM and criminal behaviour (see Hicks' *In Pursuit of Satan* and references cited therein). The available evidence not only contradicts the assertions made by the above authors, but also suggest that criminal acts by HM fans should be seen in the same context as similar acts by Country and Western fans, or by anyone else for that matter, i.e. they are criminal acts committed by individuals or small groups, for reasons best known to themselves. There is

simply no such animal as Heavy Metal Crime. Classical music found favour among many Nazi concentration camp commandants, but no-one has ever suggested that listening to classical music is at all likely to dispose one towards a career in institutionalised mass murder.

One should always be wary of drawing parallels with the unresolved and contentious debate surrounding explicit pictorial and video pornography, especially where violence and sex are linked. In this instance, we are dealing with visual vs aural imagery. The media of presentation are dissimilar and their impact quite different, even where similar subject matter may be addressed. The musical images are transitory - there is no aural equivalent of a photographic sequence, freeze frame or slow motion replay – and quite impersonalised in their interpretation. It has been suggested that the song lyrics run a poor second to the actual music in a majority of situations (see above studies).

Censorship

Demands for the censorship of HM originate in the United States and are framed within a very clear political agenda. To a large extent, censorship of HM and other forms of rock music, is an issue promoted by groups associated with the fundamentalist Right. Along with the opposition to gun control, abortion, the support for Creationism and such, censorship is seen as a ready panacea to a number of social ills. Given that a large number of teenage suicides involve guns, there has been a resounding silence on this point by what is usually the most vociferous lobby. Their silence becomes explicable when we examine the wider political agenda.

A strong political component to the HM debate is also suggested by an examination of the group most prominent in the pro-censorship campaign. This group is the Parent's Musical Resource Center (PMRC), run by one Tipper Gore. Ms Gore, and at least ten other women who run this lobby group, just happen to be the spouses of high profile US senators. Albert Gore, (now the Vice President-elect) and five other of these senators are members of a special senate committee instituted to investigate complaints raised by the PMRC. Thus we have an interesting symbiotic relationship in operation.

In an issue like censorship, one must carefully consider the matter of standards. Who, for instance, defines what is "obscene"? In the present matter, it is clear that North American Fundamentalist Christian standards are the moral yardsticks being promoted. The performance of those that promote these standards in other areas such as "Occult crime", creation "science" and social issues in general, should give us reason to be

concerned. One of the broad findings of Professor Deena Weinstein's recently published study into this field is that negative imagery of HM may actually assist listeners in adjusting to a world that is far from pleasant. This same point is made by a number of bands, such as *Metallica*, who maintain that fans have often contacted them claiming that their music has provided support in difficult circumstances. For each suicide there may have been many more who have used this music as a form of lifeline.

Conclusion

In the final analysis, it would appear that the debate over the impact of Heavy Metal is largely a matter of politics. It is of interest to sceptics because the debate has direct links to urban myth-making (via Satanic conspiracy elements), the exploitation of highly charged issues (teenage suicide, violence, drugs) for political ends and pseudoscientific theory (back-masking, subliminal messages) and the fact that the debate provides yet another set of simplistic explanations and solutions for complex social problems.

I have to agree with Anthony Pratkanis (*Skeptical Inquirer* 16/3; p 270) who had this to say of the *Judas Priest* trial:

"They (the two suicides) lived troubled lives – lives of drug and alcohol abuse, run-ins with the law, learning disabilities, family violence and chronic unemployment. (And, in at least one case, fundamentalist religion. **Ed.**) What issues did the trial and the subsequent mass-media coverage emphasise? Certainly not the need for drug treatment centers; there was no evaluation of the pros and cons of America's juvenile justice system, no investigation of the schools, no inquiry into how to prevent family violence, no discussion of the effects of unemployment on a family. Instead, our attention was mesmerised by an attempt to count the number of subliminal demons that can dance on the end of a record 'needle'.



As one who holds that the last good writer of popular songs was Cole Porter, I confess to complete mystification while entering Greg's article. As an opera fan, though, I was struck by the similarity of HM themes to those of many of my favourite operas. To my knowledge, there is no movement to ban opera because of its deleterious effect on our society.

Ed

PHILOSOPHY AND THE PARANORMAL (IV)

Scepticism and Knowledge

William Grey

This is the fourth and final article in a series in which Dr William Grey of the Department of Philosophy, University of New England, Armidale, examines some fundamental issues raised by psychic and paranormal claims.

Hume on the Evaluation of Extraordinary Claims

In this series of articles I have examined the nature of paranormal belief, and suggested that such beliefs are a pathological expression of the very same capacities which have provided some of our most profound insights. Having looked at some parallels between genuine and spurious belief systems I went on to examine some important differences. At the end of this discussion, I noted that paranormal claims are often in conflict with laws of nature. The violation of a law of nature is one definition of a *miracle*, and it is to the miraculous that we shall now turn.

Hume's essay 'On Miracles' (1748), written more than two centuries ago, is relevant to our concerns. In it Hume proposes some important epistemological principles which are directly relevant to paranormal belief. The essay was written in response to what Hume regarded as an upsurge in credulity, though one which occurred much more within a prevailing context of Christian belief than our contemporary New Age enthusiasms. But the eighteenth century had its Shirley MacLaines, making claims which were conspicuously at odds with deliverances of ordinary experience, and Hume was concerned to assess the credentials of these claims.

Hume's interest was probably kindled while living in France from 1734 to 1737, when supposed miracles at the grave of Abbe Paris in the cemetery at St Medard for the persecuted Jansenists, were generating widespread interest. As well as being a topic of contemporary interest, miracles play a role in natural theology—the attempt to prove the existence of God, and sometimes human immortality, from premises provided by observation and ordinary experience—and this too was a subject which fascinated Hume.

According to Hume, beliefs must be based on reason or *experience*. These two sources of knowledge are called a *priori* and a *posteriori* respectively. Natural

theology provides both a *priori* and a *posteriori* arguments for God's existence. The most important *a priori* argument is the ontological argument, devised by St Anselm. The central *a posteriori* arguments (based on experience) in natural theology are the cosmological argument and the teleological argument (the argument from design).

Hume attacked the *a priori* and *a posteriori* arguments for the existence of God in his posthumously published *Dialogues Concerning Natural Religion* (1779). Miracles are sometimes claimed to provide a different kind of *a posteriori* support for belief in God's existence through revelation. Hume's discussion of miracles is thus part of his systematic critique of the most influential arguments in natural theology. The essay in effect completes his critique of natural theology. It is important to see that the discussion of miracles has been extracted from a wider context, and one which I hope that some will find rewarding to explore.

What is a miracle? In the vernacular we speak of "miraculous" escapes and the like, to characterize events which are extremely unlikely—at odds with the normal course of experience. A miracle in this (weak) sense just means a very improbable event. Hume had a stronger sense of 'miracle' in mind, namely something which violates a law of nature. It is in this sense that miracles have commonly featured in religious systems of belief, as the means by which God has been thought to have demonstrated His presence or His power to His chosen people. The question which Hume addresses is: are we justified in believing that miracles have in fact occurred? He argues for the very strong conclusion that we are *never* justified in believing that a miracle has ever occurred.

I want to remove a possible point of misunderstanding at the outset. Hume is *not* claiming to show that miracles have never occurred. Proving negative existence claims is notoriously problematic. Hume's claim is the importantly different one that we are never rationally justified in believing that miracles *have* occurred. That is, Hume is addressing the epistemological issue of what it is rational to believe, rather than the metaphysical question of what is and is not possible in our sort of

world.

The argument has two parts. First Hume argues that the evidence *against* miracles is usually very strong. (And according to one of Hume's epistemological maxims "a wise man proportions his belief to the evidence".) We have therefore to weigh the evidence that a miraculous event happened against the evidence that it did not in fact happen. In evaluating the testimony that miracles have in fact occurred, Hume (1748, pp. 115-6) advances the following principle which, echoing Ockham, has been called Hume's Razor. The principle is:

No testimony is sufficient to establish a miracle unless that testimony be of such a kind that its falsehood would be more miraculous than the fact which it endeavours to establish.

The second stage of the argument claims that even though the evidence in favour of miracles *might* outweigh the evidence against them, *in practice this never happens*. Hume maintains that there never was a miraculous event established on sufficiently strong grounds to warrant rational belief in its occurrence. There are four factors which undermine the credibility of any claim in support of the miraculous.

First there is the problem of witness credibility. Witnesses who testify as to the occurrence of miracles are seldom totally above suspicion of either having been deceived or of the intent to deceive. In evaluating their testimony we must always choose between believing (a) a miracle occurred, and (b) the witnesses were deceived or deceitful. According to Hume (1748, p. 116) no miracle has ever been "attested by a sufficient number of men, of such unquestioned good sense, education and learning as to secure us against all delusion in themselves; of such undoubted integrity as to place them beyond all suspicion of any design to deceive others ...". All claims for miracles, that is, suffer from what we call a credibility gap.

The second problem which Hume identifies is human credulity. There is a natural human affinity for the novel, the surprising and the marvellous. Recognizing this propensity for credulity, we must take note of and be guided by the following maxims in evaluating claims for the miraculous:

Objects of which we have no experience resemble those of which we do have experience;

What we have found to be most usual is most probable;

In case of dispute, give preference to the side favoured by the greatest number of observations.

These sound, if somewhat pedestrian, maxims are

frequently overridden by the excitement and novelty which is often the basis of human credulity.

The third point about miraculous claims to which Hume (1748, p. 119f.) draws our attention is the tribal origins of superstition. Miracles occur mainly in primitive (in Hume's words "ignorant and barbarous") nations, or are derived from barbarous and ignorant ancestors. As human understanding develops we come to reject omens, oracles, astrology, demons, and the like as unhelpful in explaining natural phenomena.

Finally, Hume (1748, p. 121f.) points to a problem which confronts claims of the miraculous concerns conflicts of testimony. It is impossible that the religious traditions of "ancient Rome, of Turkey, of Siam, and of China" should all of them, be established on any solid foundation. Every miracle claimed within any one of these traditions is intended to establish the truth of that tradition. But it also is intended to discredit the claims of the others, and thereby serves to discredit the miraculous occurrences claimed by these other traditions.

Hume believed that the propensity of mankind to superstition and the marvellous may receive some check from sense and learning, but he also seems to have believed that it could never be thoroughly extirpated from human nature. Hume, one suspects, would not be surprised to find beliefs in astrology, UFOs, crystals, channeling, and similar credulous ideas in the twentieth century.

I repeat that Hume is *not* claiming that he knows that miracles never occur. His claim is rather that it would never be rational to suppose that they do. He is advancing an empirical argument (that is, based on factual claims) against the credibility of miracles. Hume was a sceptical philosopher *par excellence*, and I will turn next to the virtues of scepticism.

The Virtues of Scepticism

Scepticism can be characterized as a critical stance with regard to knowledge (or existence) claims, and a sceptic is one who calls such claims into question. Scepticism can refer to either (a) the critical stance adopted in subjecting knowledge claims to careful scrutiny or (b) a state of doubt or disbelief which may be the outcome of such an inquiry. Being sceptical in the second sense (withholding assent, or suspending belief in a particular claim) need *not* involve believing the opposite. Scepticism is a matter of doubt rather than denial. If I withhold assent from the claim that God exists, it need not be the case that I believe that God

does *not* exist. I might believe that the evidence is just not strong enough to settle the matter either way.

We need to distinguish between *critical* and *dogmatic* scepticism, and between *selective* and *global* scepticism, though these terms do not mark absolute distinctions. That is to say, scepticism can be more or less dogmatic and more or less global. Scepticism is *dogmatic* if assent is withheld *a priori*, that is on the basis of prior conviction without considering the evidence. For example, Galileo's colleagues expressed a perfectly intelligible scepticism about the existence of the moons of Jupiter; they became dogmatic when they refused to look through his telescope. Scepticism is global if it is general and encompasses *all* claims to knowledge; selective if it is targeted to *specific* knowledge claims. Global scepticism is rare. Perhaps the Greek philosopher Cratylus, an older contemporary of Plato (c.428-c.348 BC), is the most global sceptic recorded in the annals of philosophy. His scepticism is said to have been so extreme that he refused to answer questions and would only wave a weary finger at his interlocutor to indicate that truth was so elusive and ephemeral that it would be useless to reply. (That at least is what his interlocutors are reported to have believed him to have been attempting to say.)

Scepticism which falls short of the global, as it usually does, always has to be qualified by specifying the subject matter to which it is directed. There are various beliefs, for example beliefs about rocks and tables which are relatively immune to sceptical doubts—at least outside philosophy seminar rooms. At the other extreme there are tooth fairies, Santa Claus, and the elixir of life, which most will immediately dismiss as lacking sufficient epistemic warrant. In between (drawing boundaries here will create controversy) there are various disputed cases and claims, such as God, economic rationalism, J-curves, nuclear deterrence and psychic and paranormal phenomena. Disputed cases are also the coal-face of the professional philosopher: on which side of the dividing line, for example, should we put minds, beliefs, desires, meanings, properties, and numbers?

When confronted with a claim about some strange, paranormal or similarly anomalous phenomena (an accurate premonition, a "near death" or an "out of body" experience, say), we should adopt a scrupulously sceptical approach. By this I do not mean that we must conclude that the experience did not occur, or that whoever had the experience must have been somehow deluded—though do not rule that out either! Rather, we should be alert to the possibility of natural and ordinary

explanations of unnatural and extraordinary occurrences. We must be especially careful in evaluating the evidence which appears to support such anomalous events. While rejecting a dogmatic scepticism which refuses to countenance anomalous events, critical scepticism seeks to gather as much evidence as possible concerning any extraordinary or allegedly paranormal event, claim, or theory.

Critical scepticism means keeping an open mind and not rejecting disputed claims *a priori* (that is, on the basis of prior conviction without considering the evidence). We must examine the evidence scrupulously. But it means refusing to accept as true claims for which there is insufficient or ambiguous evidence, and recognizing that withholding belief is preferable to accepting claims for which there are not sufficient grounds. And it means adopting as a methodological maxim the principle that in seeking explanations we should prefer the ordinary to the extraordinary, and the simple to the complex. This is one interpretation of a methodological principle commonly attributed to William of Ockham (c.1285- 1349) and known as 'Ockham's razor'.

Scepticism is the disposition, or art, of matching belief to evidence. There is at present no convenient antonym for 'sceptic'. For convenience, I propose to revive the archaic expression 'credulist' to serve this role. A credulist can be understood as someone who is apt to accept claims without sufficient evidence, that is to say, someone whose epistemic standards are too low.

Etymologically, *skeptikos* means "inquirer", and the value of scepticism is that it leads to—and when seriously entertained is usually the result of—a systematic inquiry into the foundations of knowledge. Sceptical arguments play a central role in inquiry, particularly philosophical inquiry where they have been directed not just at eccentric belief systems, but also at beliefs which most regard as self-evident. Thus sceptical arguments have been raised about the existence of other minds, knowledge of the past, knowledge of material objects (the "external world"), moral truths, sensory knowledge, and even about knowledge of logic and mathematics.

The purpose of scepticism in these cases is (usually) not to raise extravagant doubts (though that is sometimes an unintended consequence), but rather to clarify our understanding of the subject of inquiry. There are apparently more modest forms of scepticism which challenge, for example, theological or metaphysical knowledge. And in some cases (for example, I suggest

with respect to astrology or phrenology) scepticism seems to be not merely defensible, but appropriate.

When pressed to extremes, sceptical arguments sometimes turn out to be self-defeating, and the critical pursuit of knowledge leads to a denial that knowledge is attainable. Extreme or global scepticism has often been the consequence of setting unreasonably high standards as to what is acceptable as knowledge: in particular setting absolute certainty (the impossibility of being mistaken) as a requirement for genuine knowledge.

Routine rejoinders to sceptics are first the claim that sceptics demand unrealistically high standards of proof (often accompanied by the charge that the sceptics' insistence on these standards is unjustified), and secondly an insistence (sometimes dogmatic) that a disputed category of experience (a psychic experience, say) is more certain than any sceptical argument which calls them into question.

Regarding the first point, the insistence on protocols, controls, and repeatability are based on the beliefs that nature is consistent—and human nature often suspect. No one demands 100 per cent repeatability. There are always anomalous observations due to the quirks of experimenters or their apparatus. (Indeed with complex scientific experiments it is a formidable task to get anything to work at all.) But for any extraordinary claim to gain respectability, it has to be replicable by someone somewhere. A recent example of the failure to meet this requirement was the discrediting of the exciting empirical claim by Pons and Fleischmann about so-called 'cold fusion'.

The problem with psi phenomena is not that it is difficult for careful researchers to get it to work occasionally under rigorously controlled conditions; it is difficult for careful observers to get anything at all that can't be dismissed as noise, error, wishful thinking, chance and often, sadly, fraud. It is for this reason that the requirements of controlled experiments and repeatability cannot be dismissed as unduly fussy: experience shows that nature does not cheat and that people sometimes do. There are a number of manipulative techniques, such as 'cold reading', which are well-known to psychics (and magicians), which are used to fool people into believing that there are special psychic powers. For a good account of "cold reading" techniques see Hyman (1981).

Scepticism should not be confused with *cynicism*, though it frequently is. A cynic is someone who is inclined to believe the worst about people. Cynicism is however a *form* of scepticism: it is scepticism about the

sincerity or goodness of human motives and actions. Historically, Cynics were a sect founded by Antisthenes, a pupil of Socrates, who condemned wealth and the enjoyments of life. The most extreme and celebrated exponent of the movement was Diogenes.

In the history of philosophy we find sceptical arguments are repeatedly proposed and then attacked and "refuted". Scepticism is a continuing challenge to dogmatic claims, and helps to maintain the spirit of free inquiry. Without scepticism we would be in danger of failing to distinguish enthusiasm, prejudice and superstition from serious, rational, and well-grounded beliefs, which is essential to the task of making sense of the world. Perhaps the main danger for sceptics is that they sometimes have difficulty in distinguishing hard and soft data; that they set their standards of epistemic acceptability at too high a level (in contrast to credulists, whose epistemic standards are too low) and may tend to promote their own form of dogmatic conservatism. The aim of scepticism is to combat doctrinal rigidities which can afflict almost any belief system, but sceptics must remain alert to the possibility of falling prey to rigidities of their own. Scepticism is all about matching belief to evidence. It is a difficult and continuing challenge to maintain the right proportion of scepticism in our inquiries. Only then are we able to steer between the Scylla of dogmatism and the Charybdis of credulism.

Scepticism and Philosophical Inquiry

Scepticism is (or should be) a central component of any serious inquiry, but it has an especially important role in philosophical inquiry. The object of philosophy, I think, is to try to make sense of the world and our experience of the world. That is also the aim of other activities as disparate as physics and poetry, but philosophy has some distinctive features. In particular, philosophical inquiry is motivated by the desire to provide a critique of the very general and very basic beliefs in terms of which we categorize and explain.

Philosophical argument typically drives the inquirer to address fundamental intuitions. But if philosophical inquiry is ultimately grounded on unjustified (and perhaps unjustifiable) intuitions, why engage in the enterprise? One reason is that our intuitions sometimes disconcertingly collide. For example it is plausible to suppose that there are no necessary connections between events—Hume showed how this can be defended on the basis of intuitively plausible assumptions. There seems to be no obvious objection to the supposition that any event or state of the world could be just what it is quite

irrespective of the antecedent states of the world. But the sceptical hypothesis suggested (though not defended) by Russell (1921, pp. 159-60) that the world might have been created five minutes ago, complete with illusory memories of a non-existent past, seems to be derivable from this Humean thesis, and *that* hypothesis is not in the least plausible.

Again our intuitive belief that dreams are illusory experiences which we have while asleep seems plausible. But it is difficult to reconcile this with our intuitive belief that we know perfectly well that we are *not* asleep *now*. So one result of philosophical inquiry is to resolve, at least as far as that is possible, conflicts between basic beliefs. Perhaps we can thereby produce a better, richer and more consistent conception of the world.

Philosophy typically employs reflective generality—clarification and rigorous argument—to reach its conclusions. Other disciplines of course utilise reason and argument too. There is nothing really distinctive about the *methods* of philosophical inquiry. There is however something distinctive about philosophical questions: their breadth, their scope, their *a priori* character, their intractability, their reflexive nature. Philosophical inquiry is distinctive in that it reflects on everything, including its own nature and methods, even though the methods themselves are never finally settled. The discipline of philosophy is self-consciously argumentative. This is an approach started in ancient Greece. Perhaps what is distinctive is the *extent* to which clarification and argument are used. Appeal to facts are made, but also use of imaginative thought experiments.

Plato said philosophy begins with wonder. Originally philosophy included all systematic inquiry (the search for knowledge); however other disciplines have separated as they developed their own methods of inquiry or experimental techniques. Physics and astronomy established themselves as autonomous disciplines very early, other disciplines (such as psychology and linguistics) have formed separate fields of inquiry more recently. It has been suggested that as empirical fields become established there is nothing left for philosophers to do apart from the study of logic and language. I cannot dissect this unduly pessimistic appraisal here.

Concluding Remarks

After delineating the nature of the paranormal (in Part 1 of this series), I went on (in Part 2) to examine the historical development, and the process of rejection, of scientific theories. I argued (in Part 3) that although there

is no satisfactory formal demarcation criterion which separates “respectable” and “eccentric” systems of belief, this does not prevent the decisive rejection of defective theories. Finally, in this concluding part of the series, I examined Hume’s arguments concerning anomalous belief claims, and outlined the virtues and role of scepticism. Understanding the process of theoretical development helps us to understand the nature and appeal of paranormal and deviant belief systems. As in medicine, where we learn about the economy of the healthy body through examining its pathology, so in the case belief systems we learn much through examining the pathological cases presented by alternative epistemologies. Our understanding of the health of cognitive systems, like the health of organic systems, is deepened by the study of their pathology. This is why psychic and paranormal beliefs have implications for our understanding of systematic inquiry. And—to continue the medical analogy—one of the principal virtues of scepticism is its role in promoting epistemological hygiene.

No blanket rejection of paranormal claims is however possible: each claim has to be assessed on its merits. And psychic claims, even if nonsensical, provide an abundance of fantasy entertainment and may be the source of much harmless amusement. For some belief in “psi” provides a map of their experiential territory for which no other is available. Many hope that somewhere in the dross there is some nugget of psychic or paranormal truth. But the prospects are not promising. The search for incontrovertible evidence for psi has failed, or is at best inconclusive. But while the quest has not revealed anything interesting about the world, it has revealed much of interest about human psychology and about how we think about the world. We do not have any reason to suppose that there are any hidden forces, synchronicities, or non-causal determining factors. Perhaps the universe turns out to be less exciting than it might have been. But (as Isaiah Berlin has gloomily remarked) there is no guarantee that the truth has to be interesting.

There is still plenty of anomaly to explain, but no reason to suppose that this will require us to invoke any superstitious belief systems. The psychologist David Marks (1986, pp. 119-123) has bluntly summed up the situation as follows:

... after millennia of experience and more than a century of controlled investigation, since the founding in 1882 of the Society of Psychical Research, the paranormal remains as controversial

as ever. While credence in extrasensory perception (ESP) and precognition is widespread, parapsychology has failed to produce a single repeatable demonstration. Until any significant discoveries are made, science can justifiably ignore it, but it is important to say why: parascience is a pseudo-scientific system of untestable beliefs steeped in illusion, error and fraud.

But even though the search for psi phenomena is at best inconclusive, the inquiry *does* reveal a lot about human credulity and the love of wonder which Hume lamented. It also shows that we are pattern making creatures *par excellence*; we have a great capacity to discover pattern in the world, and when we don't find it we are disposed to invent it. What our inquiry reveals, above all is the thirst for pattern in the chaotic gestalt of our experience. There is a powerful urge to embellish our lives with pattern—to locate ourselves in networks of meanings. There is pattern which we discover, and pattern which we invent. A major epistemological task is to distinguish between the two.

Some fabricated patterns, such as art, are very old. Religion, too, seems to occupy a very well-entrenched epistemological niche in the task of locating ourselves in the world. Science is more recent. Oscar Wilde reportedly said “religions die once they are proved true; science is the record of dead religion.” However I have deliberately avoided comparing paranormal and supernatural belief, though a number of writers have suggested they stand or fall—usually fall—together. It is a further question to what extent religious belief involves belief in the supernatural.

The search for, and—less frequently—the discovery of pattern in the *lietmotif* is the most definitive human characteristic: the cognitive capacity to develop an understanding of ourselves and our world. Perhaps a final moral to be drawn is that humanity's characteristic love of wonder, which Hume lamented, is—if unconstrained—as likely now as it was when Hume was writing, to lead us astray in our search for truth.

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Odd Bits

Thanks to Prof Colin Keay of Hunter Region Skeptics for alerting us to the *Science* Vol 258 (16 October) report on the winners of the 1992 Ig Nobel prizes. The Ig Nobel prizes, awarded by the MIT Museum and the *Journal of Irreproducible Results*, are the legacy of Ignatius Nobel, allegedly a relative of the more famous Alfred. They are awarded to “men and women whose achievements cannot and should not be reproduced”.

The winners were:

Medicine: a Japanese research team at the Shisedo Research Centre in Yokohama for their paper “Elucidation of Chemical Compounds Responsible for Foot Malodor”.

Biology: Cecil Jacobson, the Virginia based fertility specialist convicted of using his own sperm on dozens of women. The citation honours his “simple, single-handed method of quality control”.

Physics: Dave Chorley and Doug Bower, two elderly landscape painters who claimed to have made all those mysterious crop circles, honoured for “their circular contributions to field theory based on the geometric destruction of English crops”.

Chemistry: Ivette Bassa of Kraft Foods, leader of a group called “Team Jell-O” for her synthesis of bright blue gelatin.

Archaeology: a French youth group, for erasing ancient cave paintings in France, while trying to remove graffiti.

Literature: Yuri Strutchkov, of the Institute of Organoelemental Compounds in Moscow, who published 948 scientific papers from 1981 to 1990, an average of one every 3.9 days.

* * *

Faith may be defined briefly as an illogical belief in the occurrence of the improbable. There is thus a flavour of the pathological in it; it goes beyond the normal intellectual process and passes into the murky domain of transcendental metaphysics. A man full of faith is simply one who has lost (or never had) the capacity for clear and realistic thought. He is not a mere ass; he is actually ill. Worse, he is incurable, for disappointment, being essentially an objective phenomenon, cannot permanently affect his subjective infirmity. His faith takes on the virulence of a chronic infection. What he says, in substance, is this: “Let us trust in God, *Who has always fooled us in the past.*”

H L Mencken, Prejudices: Third Series, 1922 ■

THE FRINGE

In the Name of Science

Colin Keay

For many years the BBC broadcast each week Alistair Cook's invariably interesting *Letter from America*, and in one of them he related the story of a European immigrant who arrived in the United States penniless and built up a formidable fortune. When asked for the secret of his success he simply said "There ain't no free lunch!" His declaration was none other than the First Law of Thermodynamics. No violation of this basic law has ever been observed. Yet, among countless other public delusions, we have even seen State Premiers make fools of themselves by believing that water can be turned into petrol as a source of free energy.

Proof that the dream of free energy is still alive in the heart of darkest Victoria (not Queensland this time) comes in the form of a magazine called *Tuning In*, dedicated to the ultimate publication of "plans for a build-your-own free energy device".

Such devices are categorized as "over-unity power generators", because they are expected to deliver more power than they consume. Such a publication would not really be worth a mention, except that it treads almost precisely the same path as the creationists, although neither group would see the similarity.

One of their common ploys is the use of university name-dropping to convey the impression that if a reputable university is involved there must be some substance to the claims. The issue of *Tuning In* which came my way contains an article "Operational Free-energy Devices Propelled by Accelerated Magnetic Fields" by Dr Jan Pajak, Q&CS, University of Otago, New Zealand. With such gems as "the concept of Dipolar Gravity distinguishes between two different types of motion, i.e. the 'physical motion' and the 'psychokinetic motion'" (sic, underlines and all), you get the general idea. If you want more, "The most important of these differences (between the physical force and the psychokinetic effect) is that the Psychokinetic Effect does NOT exert (return) a reaction force to its cause." The physics of elementary particles is held to directly confirm the psychokinetic effect. Fat chance anyone other than a trained physicist has of arguing otherwise. Jan Pajak's eleven closely typed pages of pseudo-physics closes with the promise that mastering this effect is "one

of the most important bequest that scientists of this century can present to future generations" (sic).

So what is the story of Dr Pajak and his connection with the highly reputable University of Otago? Now approaching fifty years of age, he lists the degrees ME, DrTSc (Wroclaw) after his name. On arrival in New Zealand from Poland he first gained employment at the University of Canterbury and then at Southland Polytechnic, tutoring in computing. From 1988 he was on the staff as a senior lecturer in the Quantitative and Computer Studies section of the University of Otago (now the Department of Information Science). He caused great embarrassment by writing extensively on the storage of large amounts of energy in an 'oscillatory chamber' and his invention of a 'Magnocraft', a flying machine utilising "the attraction and repulsion of magnetic fields", which was published in a Polish Journal *Przegląd Techniczny Innowacje* in 1980. The University of Otago had major problems with him writing as an academic to the newspapers about visitors from outer space, so he and the University parted company in 1990. The University disclaims responsibility for anything he wrote.

Dr Pajak is now in Turkey at the University of North Cyprus. Whether or not his departure contributed to New Zealand's economic recovery is open to speculation. Dr Pajak's free-energy devices are not the only scientific breakthroughs revealed to a power-starved world through the pages of *Tuning In*. Further breath-taking leaps of scientific theory await the connoisseurs of totally lateral thought. Consider, for instance, the anonymous article on the "Consciousness, Mass, Energy Triangle", which makes ravings over the Bermuda Triangle appear as models of sanity. By simply equating Newton's Law of Universal Gravitation and Coulomb's Law of Electrostatics (as absurd as equating space shuttles with sea snakes) the author obtains a quantity equal to the mathematical imaginary number i times the square root of the universal gravitational constant times mass. This is called the "shadow charge" and is "the quantification of panpsychic consciousness". It is supposed to be the quantity of consciousness within a body of mass m . Which directly implies that Ayers Rock has about a billion times as much

consciousness as you have.

Just prior to the triangle article is one titled "How to distinguish between nebulous double-talk and a legitimate scientific presentation" by Joseph H Cater. He asserts that "any intelligent reader can quickly determine whether or not any esoteric publication is worth the paper it is written on if it violates any or all of the following categories (and) you can quickly dismiss it without any further reading". As a sample of the categories, (4) is "The article is in harmony with the dogmas of academic physics" and (5) is "He uses a lot of complex mathematics and diagrams". Clearly the nebulous Consciousness Triangle article follows this gem of pseudo-enlightenment in order to test the reader! More to the point, just about every serious text in the physical sciences would immediately fail Cater's criteria for legitimacy.

The question of why there is so much rubbish written and published along the general lines of the "Consciousness, Mass, Energy Triangle" has been addressed by the Russian High-Energy Physicist, Professor Lev Okun. In his book *A Primer in Particle Physics* he remarks that "certain things in elementary-particle physics do not have simple and demonstrable explanations". He goes on: "It is appropriate at this point to say a few words about popular science literature. There is no doubt that popular science books do help the lay reader, at least to some degree, in the vast, multidimensional, tangled maze of science. To that extent, this literature does much good. At the same time, some damage is also done. This literature provides descriptive, very approximate, comic-strip-type pictures of scientific theories and experiments (quite often, no other description is achievable in popular science books), and is likely to push the reader to a deceptive feeling of simplicity and complete understanding."

Professor Okun goes on to remark that "the popular science literature is responsible for the steady flux of letters conveying illiterate 'refutations' and 'radical improvements' of relativity, quantum mechanics, and elementary-particle theory that flood many leading physics institutes." Which simply goes to show that Russia is no different from the West in this regard. The Cyrillic-alphabet equivalent of *Tuning In* is probably on sale somewhere along the Arbat! Just as I was concluding this grizzle, the worthy editor of *the Skeptic*, by an amazing feat of clairvoyance, conveyed to me yet another example of those scientifically illiterate effusions that Lev Okun was on about. My usual drill is to skim through them quickly to see if there are any redeeming

features, mainly by way of good laughs, and consign them to my nutters' file. Alas, the laughs are all too rare and the overwhelming emotion is increasingly one of sadness.

We live in an amazing universe, with incredible discoveries so commonplace we take them for granted. We are surrounded by the fruits of science to an unprecedented extent, giving many of us a degree of comfort which the Roman emperors would envy if they could only glimpse it. This bounty flows directly from our growing success in probing the deeper secrets of nature. And yet we are surrounded by legions of abysmally deluded individuals who imagine that only they hold the keys of knowledge and understanding.

The latest piece of twaddle (seven close-printed pages) was the product of a retired consulting engineer. He asserts "We are in a terribly farcical crisis: the science of physics contains gross lies!" And goes on and on with such totally misconstrued notions that one wonders how he ever made a living out of engineering. Example: "Mindful readers ... may have wondered about the validity of the famous equation $E = mc^2$. It cannot be sustained any longer: the enormous amounts of radioactive leftovers from nuclear reactors and experiments is obvious and is clear proof that mass and energy are not equivalent".

After reading several pages of that kind of nonsense, written by a supposedly educated person, is it any wonder that one feels a deep sense of sadness and despair. All the education, all the BBC *Horizon* science programs, all the science museums and all the hard evidence for the essential truth of science count for nothing. Such people have no idea of the thrill of discovery and sense of fulfilment that impels creative scientists to work long hours, often for poor remuneration, on investigations which add to the store of human knowledge and understanding.

That such a gulf exists within our society is a sign of massive communication failure, and is undoubtedly related to the public's insatiable hunger for pseudo-science. ■

**Fax your contributions to the
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SELF IMPROVEMENT

Soul Food?

Geoff Schmidt

In Melbourne every Saturday, the Age publishes its *Saturday Extra*. As well as feature writers, travel information, book reviews and so forth, the *Extra* is a gold mine of advertisements for all manner of courses and seminars aimed at peoples' spiritual well-being (and presumably the well-being of the advertisers' bank balances).

Here's one: "Find out for yourself; what is "A Course in Miracles?" A public presentation on the number one topic of interest sponsored by The Possible Human Transformation." Very meaningful stuff, no doubt, but at the time of writing Melbourne's number one topic of interest is probably the footy premiership. (And at the time of publishing, Melbourne should have tried miracles, which just may have kept the premiership in Vic. **Ed**)

Another one: "Astrology Short Course. Understand yourself and others. Fun, Small Classes, Houses, Role Playing, Music, discover your True Potential." Not for you, you say? Never mind, you can explore your potential with an "Introduction to Metaphysics. Topics include Subtle Bodies, Kingdoms of Nature, Healing, Chakras, Reincarnation, Karma."

That takes care of your potential for a while. Lets do some Transcendental Meditation, which: "* slows the aging process, * increases inner happiness, * dissolves stress and anxiety." What a set of claims ... where is the Trade Practices Commission when we need it?

Would you, on the other hand, prefer: "The Somatic Experience. An Introduction to Somatic Psychotherapy"? For only \$750 you get, "Neo-Reichian body oriented Experiential (whew!) Somatic Psychotherapy in a series of five weekend workshops." And all of this is "...endorsed by the Australian Association of Somatic Psychotherapists." Great ... why not Spike Milligan's League of Burmese Trombonists as well? Makes just as much sense. What about a cheapie? A "Spiritual Seminar" at 12 bucks a throw. Speakers include: Steven Pharoh - Metaphysics and Money; Lee Kelly - Lecturer psychic; Joan Farall - Spiritualist Medium; and, keeping the best until last, Marion Ruffin - Psychic Artist. (What the hell is a psychic artist?)

Then there's the one that gets me mad. "Healing Meditation Course. For people with life-threatening or very serious illnesses. Led by Bob Sharples and Kaye Miner, course shows how to use meditation to clear the way for natural healing. \$120 ... phone for free brochure. Tara Institute." (At the Tara Institute one would expect to meet Rhett and Scarlet. Presumably no-one gives a damn.) I wonder how many people will give up medical treatment and wait for natural healing?

If you manage to survive, why not go along to "an introductory evening in the Alexander Technique"? Technique for what? ... Chicken sexing? ...Underwater Ludo? ...Conquering the known world? Who knows?

Why worry ... let's have some Transformation. There's the "Essence of Transformation. A unique weekend workshop combining flower essences and the Transformation Game. Transform stress and confusion into peace, harmony, direction." If this mob seems a bit too flippant, try "The Key to Healing and Transformation. An afternoon exploring such topics as The Healings (sic) Powers Within; Guides, Who are They and Why do We have Them?; Who and What is GOD?; Why are We Here?" Why, indeed? Put up 12 bucks and see if you find out.

Or, go a little up market. For only \$30 the Rosicrucian Order presents, "Amazing Space ... an Inner Space Seminar ... Perception, Visualisation, ESP, Imagination, Meditation, Achieving Goals." (Pity the Vic team in the Grand Final didn't follow that one! **Ed**)

To hell with the expense ... let's try "Voice Dialogue and the Psychology of Selves. Five day intensive with Drs Hal and Sidra Stone. Authors of *Embracing Ourselves* (stop it, you'll go blind), and *Embracing Each Other*." What? Oh, \$450.

Why not finish with a jolly dance? Cheap, too. For a fiver, let's see, "Whirling Dervishes. Learn the secrets of this sacred ceremony. A Sufi Sheikh of the Mevlevi Order invites you to a Taki and Subsequent Workshops on this living, mystical tradition."

But, all for nothing. We can't possibly get to all these. There just isn't time before the world ends at 1.00 am on 29th October 1992. Pity. ■

EXPERIMENT

An Out-of-Antipodes Experiennce

Ian Plimer

Professor Ian Plimer, geologist and no stranger to these pages, shows that his skills are not confined to exposing dubious stories of historical world-wide floods. In this tale of strange goings-on in Asia Minor, he provides evidence that goes to prove the old adage that “all that glisters is not gold”.

Background

Turkey is the home of the legendary golden fleece. Some of my recent geological work in western Anatolia has been in the areas mined by the Romans for gold.

A Mr Yilmaz Karagoz, the very friendly owner of antimony mines and a smelter, offered to show me how he could divine for metals. Rather than have Mr Karagoz divine for antimony (which occurs as a spectacular, easily visible, fibrous, silvery mineral), an experiment was constructed for divining for invisible gold. Mr Karagoz was convinced that he could divine for gold and had purchased a divining device (divinometer).

Equipment and Method

The Turkish divinometer comprised a stainless steel cylinder into which one placed a piece of the desired metal commodity. The equipment was suspended on a coil of spring steel and the telescopic receptor aerial (used in either a vertical or a horizontal mode) was used to detect the signal. The equipment costs \$US1,000 (cash) on the back streets of Istanbul and the receptor aerial had Bayerische Motor Werke stamped on it. This is clearly the origin of the golden fleece.

The hand-held equipment was calibrated in an old gold mining area in western Anatolia, gold was placed in the cylinder and gold-rich rocks caused rapid oscillation in the spring, in contrast to gold-poor rocks.

A collection of 40 samples was made from a gold mining area for divinometer and laboratory testing.

Before divinometer testing, the original 40 samples were exchanged for 40 samples from another area which, on geological grounds, was likely to contain no appreciable gold. Samples were determined by divinometer as gold-rich (+1) or gold-poor (-1) and the 40 samples freighted to Australian Laboratory Services (Perth) for ICP-MS analysis for gold.

Results

All samples contained a very low gold content, with a range from <1 to 141 parts per billion Au (see table) hence it would be expected that all divinometer readings would be (-).

However, 28 samples were determined by divinometry as Au-rich and there was no

correlation at all between a slight geochemical enrichment in Au and divinometer readings.

Conclusions

The experiment conducted showed that divining for gold in Turkey was at least as successful as searching for an ark.

However, there is one nagging thought – Yilmaz Karagoz is wealthy and I am not! ■

(a)	(b)	(c)	(a)	(b)	(c)
11039	<1	+	11077	11	+
11040	1	-	11078	15	-
11041	2	+	11079	7	+
11042	1	+	11080	7	-
11044	3	-	11081	33	+
11045	11	+	11082	14	+
11051	10	+	11083	80	+
11052	8	+	11084	2	+
11061	10	+	11085	11	+
11062	141	+	11086	14	+
11064	9	+	11087	9	-
11066	9	+	11088	12	+
11067	10	+	11089	5	+
11069	8	-	11090	6	-
11070	7	-	11091	45	-
11071	5	+	11092	5	-
11072	6	+	11093	2	+
11073	5	+	11094	1	+
11075	15	+	11095	2	-
11076	12	-	11096	3	+

(a) Sample number
 (b) ppb Au
 (c) Divinometer reading

EXPERIMENT

Divining for Excuses

Bob Stevens

At the Melbourne *Great Australian Science Show* the Skeptics invited punters to try their hands at water divining.

Twelve 1 litre milk cartons were set out, six containing water and six with an equal weight of sand. One of each was correctly labelled for people to calibrate themselves on, then they were invited to divine what was in the other ten. Various useful tools, such as forked sticks, bent coat hangers, crystals, a voltmeter, a banana, etc. were provided. Some folk used bare hands. (I use an aardvark's tongue – pity I didn't have it with me - then they'd really have seen something).

Most entrants filled in their results on the forms provided. “Ho, Ho” thought I, “let's recover these forms bearing scientific test results and scientifically plot a scientific histogram”.

This is a textbook example of the Normal

Distribution for random events, first discovered by Karl Friedrich Gauss (1777 – 1855). So much for the science, now let's hear the excuses:

1. Everyone knows that the presence of sceptics prevents the occurrence of psychic events;
2. and we had the wrong sort of wood for the forked

stick, or the wrong sort of coat hanger wire, etc;

3. and besides the sand was damp or wet;

4. and the water was yucky artificial, dammed-up, chlorinated tap water which had been through metal pipes and had all its natural qualities removed, not Nature's Own stuff which bubbles up, untrammelled,

from sweet springs in sylvan glades;

5. and the water was static, not flowing;

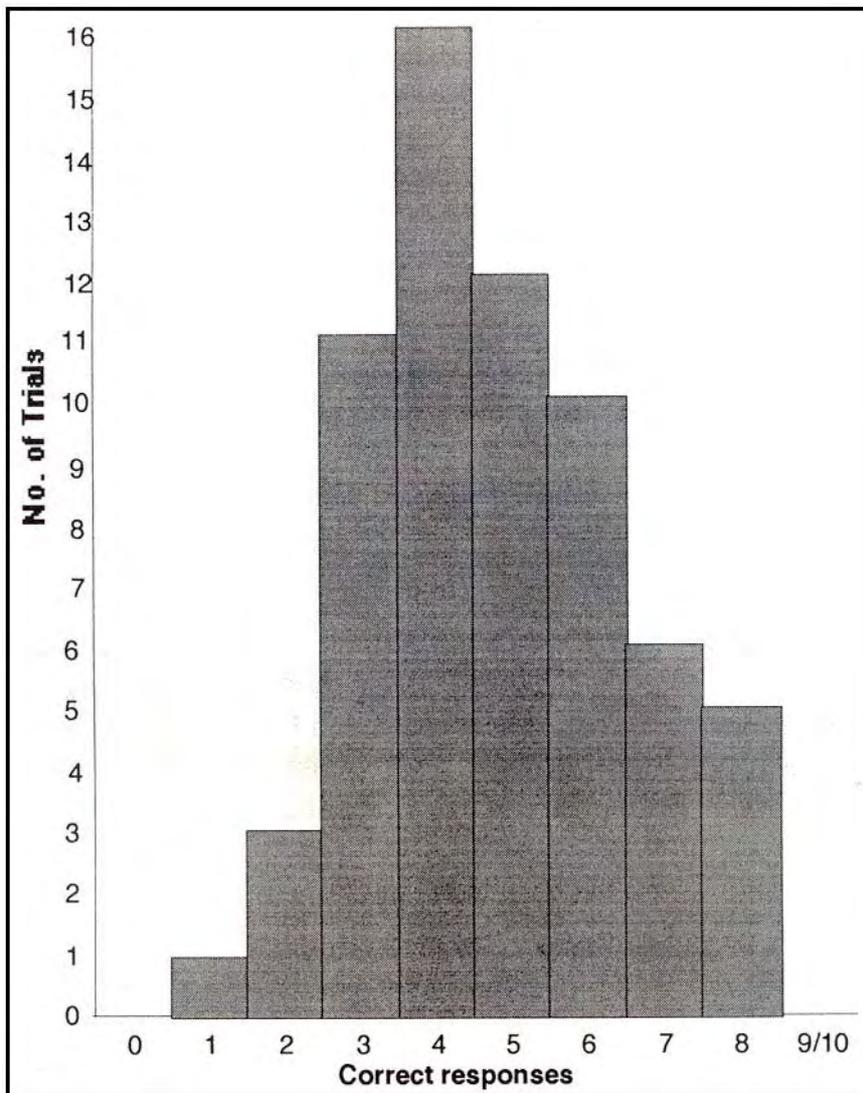
6. and anyway, the milk cartons were plastic coated, and we all know plastic is not natural, which spoils the effect etc, etc. ;

7. and it was a bad day for divining – usually it is easier.

All of these sound really convincing, and so no doubt they are, except that everybody correctly divined the two labelled samples before they tried the ten unknown ones.

One particular guy said he was good at this sort of thing and, sure enough, first try he got 8/10 right – nyah, nyah, told you so! But, on a second try with swapped around cartons he

only got 3/10 right, causing him to express his astonishment, not to mention his scepticism about our parentage, to the great amusement of all within earshot. His efforts to claim credit for 11/20 being better than average met with the advice that he should try reading a book on elementary statistics. ■



REVIEWS

Faith Questions

Harry Edwards

***Et Tu, Judas? Then Fall Jesus* Gary Courtney**

It seems that nothing in this world is black and white and, like conspiracy theories, the question of the historicity of Jesus Christ blooms perennially. In this book on the subject, the author postulates that the gospel Jesus is a mythological development from the life of Julius Caesar.

Starting with an overview of the life of Jesus according to the Gospels, the author examines the inconsistencies and unsubstantiated claims made therein, and the speculation surrounding the part played by Judas Iscariot. This is followed by an account of the rise and fall of Julius Caesar, attention being drawn to the remarkable parallels that can be shown between the two – each individual's perceived greatness, their betrayal and execution on the eve of coronation, the rise of a cult and the recording of the events as a religious play. Finally, the evidence for Jesus' actual existence is investigated, with suggestions being made on how he may have arisen mythologically.

Liberally sprinkled with historical, biblical and classical quotes, it makes provocative and persuasive reading. The book is enhanced by an occasional light-hearted touch which in no way detracts from the author's promulgation of a serious and plausible hypothesis.

Obtainable from: "Atland" PO Box 1111, Potts Point 2011 or Australian Skeptics. Price \$19.00 (post incl).

***To Hell With God*, Steve Cooper, Waller House,**

Steve Cooper's forebears were associated with religious activity for 150 years, and despite 40 years of church activity himself, the author became a convinced atheist. His views and reasons are clearly expressed in his book, a critical study of the history and ethics of the Christian religion.

Each of the sixteen chapters has a central theme, among them the concept of a god, belief and science, ethics, religion and power, women and religion and, of particular interest to Skeptics, creation and evolution. The book examines and compares the major religions and philosophies, looks at the psychology of religious dependence and amply demonstrates that the moral and social imperatives often associated with Christian beliefs existed long before that religion began.

As a sceptic primarily concerned with the paranormal, I have a minor criticism. The author was less positively sceptical in the chapters on supernatural manifestations and magic. Rational explanations of some examples of hypnotic recall, poltergeists and the old 'floating body' trick loved by magicians, could have been profitably included.

The book is well written and can be read and enjoyed without recourse to a dictionary. Available from Australian Skeptics . Price \$12.00 (post incl).

Hi-PsiQ. The Scientific Program for Testing and Training Your Psychic Powers**ThoughtWare, PO Box 216 Runaway Bay 4216****Fax (075) 94 0562**

Recently I received a phone call from Dr Robin Craig of ThoughtWare, inquiring about the Australian Skeptics Challenge. He has developed a software package which allows people to test their abilities in Clairvoyance, Precognition, Telepathy and Psychokinesis. Always a sceptic, I asked for a sample to test, which he readily supplied.

The program uses the familiar Psi test format of selecting one from five symbols, not the regular Zener cards, but using symbols such as a pyramid, crystal, etc. I found the programme fun to use and, on the first few tests discovered that I was extremely clairvoyant

but hopelessly inept at precognition and psychokinesis. I did not test for telepathy (you need two people). Of course, as the number of tests increased, so did my abilities (or lack of them) trend towards chance levels. The program also has an analytical function, which would have been more useful to me had I known a bit more about statistics. It does tend to keep the subject honest, as it logs all tests and does not allow one to ignore the lower than chance ones, always a temptation I suspect.

The instruction booklet makes no wild claims about psychic powers and states explicitly that the "evidence (for Psi) has not been strong enough to convince sceptics and mainstream scientists". Good fun.

Available from the above address.

FORUM

Whose Misrepresentation?

Barry Williams

This and the following three pages contain letters which are critical of articles written in a previous issue, and lengthy responses to them. To avoid filling our Letters pages, they are published as Forum topics.

Dear Sir, Barry Price extends his record of error and misrepresentation in your Spring '92 issue. I have never met anyone active in the creation science movement, nor has any creation science material I have ever read, indicated that a belief in six-day creation is crucial for salvation. (See enclosed article from our magazine, which explicitly states that it is not.)

This major distortion (he makes a number of other errors, including the name of another Queensland creation organisation), is repeated with emphasis in his conclusion. Price (and presumably the article's referees) being quite familiar with creationist literature, should know the real situation. Or is it that the statement's propaganda value outweighs such an inconvenient matter as truth?

By way of an aside, I notice on page 36 that the author of the article appears to suffer from the misapprehension that the 'mitochondrial Eve' argument put forward by Wilson *et al*, is that "Homo sapiens sprang from the female of the species". Tsk, tsk.

**Dr Carl Wieland
Managing Director
Creation Science Foundation Ltd**

Barry Williams responds:

While we are always pleased to publish letters from anyone who claims to have been misrepresented, or indeed from anyone who disagrees with points made by our authors, it gives us particular pleasure to receive such letters from Dr Wieland.

Before I explain why, let me say that the article referred to in Dr Wieland's letter is entitled "Is it Possible to be a Christian and an Evolutionist?" from *Creation Ex Nihilo* Vol 11, No 4, written by Duane T Gish, PhD, FAIC. In this characteristically turgid tract Gish does (grudgingly in my view) admit: "No, belief in the historicity of *Genesis* is not essential to our salvation",

before going on at length to suggest that those Christians who do not accept his dubious propositions are likely, in the after-life, to find themselves domiciled on the wrong side of the Paradisical tracks.

So now you know, Barry Price and your Editors were wrong. (At least we were if you accept that the creationist sect is any more consistent in its theology than it is in its 'scientific' pronouncements.) However unlikely that may be, I am happy to put the record straight and say that it is possible to be saved without believing all the non-scientific bilge pumped out by the creation 'scientists', which will no doubt come as a great relief to our many Christian readers.

As to 'being familiar with creationist literature', and speaking only for myself, I am only as familiar with it as I have to be, having a very low tolerance to tripe.

To return to misrepresentation; on a number of occasions in the past I have written to Dr Wieland complaining of misrepresentations of Australian Skeptics in articles in *Creation Ex Nihilo*. Not one of my letters has been published, nor have my complaints in any way reduced the number of misrepresentations. As recently as the August 1992 issue of *Prayer News* (another CSF publication) an article entitled "The God-haters", written by Dr Wieland himself, refers to "the atheist/humanist group Australian Skeptics".

I hereby nail that statement as an unmitigated lie. Australian Skeptics is no such thing, because Australian Skeptics takes no position whatever on religion. Australian Skeptics, as anyone can easily discover from reading our Aims, is concerned with "investigating pseudoscientific, paranormal and similarly anomalous phenomena from a responsible, scientific point of view". Creation 'science' falls within that ambit because it purports to make scientific (and thus testable) claims – religion does not, because it does not make such claims. The above statement by Dr Wieland is not only a lie, but is also a very good example of the lack of consistency and rationality that illuminates all creationist writings. The irony of his claim may have escaped Dr Wieland, but by no stretch of the fevered imagination can an atheist be described as a "God-hater" when an atheist, by definition, does not admit to the existence of a god.

The sub-title to Dr Wieland's article is "What causes the incredible hostility to biblical creation?" I am not competent to comment on what causes hostility to biblical creation, or even if such hostility exists (though I take leave to doubt that it does) but if Dr Wieland is asking what causes the hostility (or contempt) to the peculiar interpretation that his group places on the biblical story of creation, which they then seek to label as science, then the short answer is "Because it is a load of crap"!

We make no judgment on the religion espoused by the creationists, nor should we. In a pluralist, democratic society, people should be entitled to believe what they like, but that doesn't necessarily mean they are entitled to put those beliefs into effect. This is especially the case if, by so doing, they interfere with the rights of other people. In an analogous situation, we could hardly complain if someone decided to hold sincerely to the beliefs of the Aztecs, yet we would properly object if they started practising living human sacrifice at the Cenotaph.

If the CSF can convince those who make such decisions that their brand of religion deserves to be taught under the title of Religious Studies or Comparative Religion or whatever, then Australian Skeptics will have no view on the matter. To be consistent, however, the creationists could hardly then complain if their creation myth had to compete for attention with other creation myths, of which there are many at least as plausible.

But no amount of democracy or pluralism makes that which is not science, science. And there is no test by which creation 'science' can be shown to be scientific. Therefore, Australian Skeptics, and many other groups and individuals, will fight very hard to ensure that creation 'science' is not given the imprimatur of legitimacy by being included in the science curricula of our schools.

Further, it is interesting to note the trivial issues on which Dr Wieland chooses to make his claims of misrepresentation, or more importantly those serious issues on which he does not. In these pages in the past few years we have exposed many blatant inconsistencies and misrepresentations made by the CSF and their like in their so-called science. Notable among these have been Dr Alex Ritchie's expose of the double standards applied by Dr Andrew Snelling to the dating of rocks in professional geological and CSF publications (*the Skeptic* Vol 11, No 4), their misrepresentation of sources regarding the speed of light, as exposed by Professor Colin Keay (*the Skeptic* Vol 11, No 2) and their forced withdrawal of their now notorious Quote Book, (which

could have better been titled the *Guinness Book of Misquotations*).

Yet none of these, nor our many other exposures of creationist duplicity, has drawn a murmur of protest from Dr Wieland. Nor, I strongly suspect, have the readers of CSF publications been informed of the evidence which shows that so many pronouncements made by the leaders of that organisation are not only comprehensively wrong, but also fundamentally silly.

And there, I venture to suggest, is where the difference lies between an organisation like Australian Skeptics and one like the Creation Science Foundation. Australian Skeptics has no party line to promote because we are not selling solutions, merely asking questions. Contributors to *the Skeptic* are encouraged to question prevailing ideas and do not have to conform to any editorial line, merely to a requirement that their contributions be interesting, with at least a passing relevance to our stated Aims, and to comply with the laws of defamation. We have readers and supporters who will continue to read and support only so long as we provide a worthwhile service. If you disagree with an article in *the Skeptic*, you can respond with a very good chance of being published, and when we are wrong, we admit we are wrong.

In contrast, the Creation Science Foundation peddles a very narrow and authoritarian dogma. You will not see contrary points of view in CSF publications, nor will you see any questioning of any of the contributions, and your chance of having a complaint published is extremely low. It is difficult to imagine creationists admitting they are wrong because they persist in the delusion that they speak with the voice of God. And so, there is an implicit threat in everything the CSF publishes – either you believe or you face eternal damnation - and no amount of disingenuous denial will change that.

That might be a good way to keep up the subscription figures, but I think I would prefer to rely on an intelligent readership and on producing a quality product. To borrow some terms from the economists, they can rely on centralised control and we will respond to market forces.

Finally, I will return to Gish's article quoted above, which is liberally larded with quotations from the Bible. Well, two can play at that game, so let me conclude on the topic of misrepresentation with an extremely apposite verse from, if my Penguin *Dictionary of Quotations* does not play me false, *Matthew* 7:3. "Why beholdest thou the mote that is in thy brother's eye, but consider not the beam that is in thine own eye?"

Amen to that. ■

FORUM

On Cyril Burt

Peter Macinnis

Dear Editor,

Peter Macinnes is most unsceptical, and indeed credulous, in repeating some of the allegations against Sir Cyril Burt.

Since the early attacks arising from Professor Hearnshaw's biography of Burt, more careful analyses by Dr Joynson (1989, *The Burt Affair*) and now by Professor Fletcher (1991, *Science, Ideology and the Media: The Cyril Burt Scandal*) have shown that many of the assertions that Burt was a fraud are unsubstantiated. It is not clear that Burt faked any data, though it seems he transferred data from one study into another to complete some matrices of correlation coefficients without telling the readers he had done just that. This is obviously very poor science, and combining results from studies 20 years apart is not usually acceptable today, if it ever was. But it now appears that there was a Miss Conway, and a Miss Howard, neither invented and both social workers who helped Burt with field work.

I crossed swords, as did others, with Burt when he was editor of the (then) *British Journal of Statistical Psychology* in the early 1960s and Hearnshaw mentions me accordingly. Burt could be a very difficult man, for example, if you disagreed with him on matters of scientific writing, but there was a period in the 1930s and 1940s when he was the leading figure in Britain concerned with child psychology.

Fletcher states that Burt's accusers vilified Burt because of their ideological rather than scientific motivation. The matter is not in fact closed for the British Psychological Society; that body's council originally endorsed the criticisms of Burt but it has abandoned the view that Burt was guilty of fraud. Sceptics should be careful about regurgitating slanders; one can find oneself in odd company that way.

R A M Gregson
Emeritus Professor and visiting Fellow
Department of Psychology, ANU, Canberra

Peter Macinnis responds:

Unsceptical and credulous forsooth! I have studied fraud over three decades, and I know the smell of a rat when I encounter one. The Burt case rat is both substantial and well substantiated. I have no doubt there were several Miss Conways in Britain in Burt's time, and no doubt there were even more Miss Howards – it is after all a common name. Perhaps some of these ladies were even social workers, but did any of them assist Burt in his work?

I would ask people to read once again what I actually said, particularly the bit about how one of the mathematical papers allegedly written by Burt's "Miss Conway" became the basis of the iterative scaling procedures used at the HSC. You see, HSC scaling is a subtle thing, which most trained mathematics teachers fail to comprehend. Without special assistance, I doubt that any ordinary social worker would have created that particular intellectual tour de force. The mark of the lion's paw is there for all to see. (But who was it that was lion?)

If Burt's Miss Conway really did exist, if she really did write that paper on her own, then she would have been remarkable enough as a mathematician to be both widely known and universally admired. I cannot believe in Miss Conway, but I will sell her my spare teeth if she is still buying.

Now, what of Burt's twin sample: could it have existed? We are asked to believe that more than fifty sets of twins had been separated by the authorities and assigned to homes of different social status. We are also asked to believe that Burt had found these hordes of split twins, when nobody else could find even half as many. Stephen Jay Gould sums it up well: there was "no problem locating fifty pairs of separated twins when they exist only in your own head"¹.

Then consider this mathematical conundrum: how many pairs of twins would have to be separated so there could be that many pairs assigned to foster homes of different classes? It is a nice combinatorial problem, requiring certain sociological assumptions, but the answer does seem to involve a rather larger number of twins than I am willing to believe. And that is before

you throw in the complication of all those twin pairs where only one was found. How many more of those were there? I fear I must remain sceptical.

Someone recently invented a theory which says that we are just six steps away from anybody else in the world: find the right chain of acquaintance, and you need only to pass through six intermediaries to get to anybody at all, anywhere. On that basis, a few of my readers should be closer than six steps from one or the other of a pair of separated twins: does anybody know (or know of) even one separated twin? Well, maybe the premise was a bit blemished, but if Burt could find so many split pairs, unaided (save for two invisible ladies), why can't we find even one or two?

As to the implied accusation of vilification, I remain sceptical about anybody with an ideological axe to grind, whatever side they take. Whether the aim is to support the hereditarian idea, or to throw it out, I distrust their Type 6 science, their polemic, their bluster. I would sooner keep odd company, though, than to keep company with those who use their rank and title to prove a case which they favour on no better grounds than ideological bias.

I set no store by people's "careful analysis" until I have read it, and I must confess that I have so far read neither Joynson nor Fletcher. I will do so, but I will also investigate their known associates, to see what camp they fall into, to judge what to expect of them. I will also view with interest any real evidence (as opposed to the naive and unsupported assertions of Gregson) which they use to support their case. I will look for numbers, I will look for evidence that those twins really did exist, just as Burt described them.

I have read the careful analysis of Leon Kamin, where he provides facts and crucial evidence. Did Fletcher and Joynson prove that Kamin's evidence was fraudulent? Were these numbers inherently vilificatory? If Fletcher and Joynson offered any real evidence, why does Gregson take resort behind dark mutterings about ideology? I am afraid that I will have to remain extremely sceptical about the true validity of the case.

Gregson says lamely that Burt merely "...transferred data from one study to another to complete some matrices of correlation coefficients". Leon Kamin tells it rather differently: in 1955, based on 21 pairs, Burt's correlation coefficient was 0.771, by 1958, the number of pairs was "over 30", yet the correlation coefficient had not budged. Conway in 1958 had 42 pairs and the correlation had climbed to 0.778, while by 1966, Burt had found no less than 53 pairs and the correlation coefficient was amazingly back at 0.771. These were

no transferred data, they were integral parts of a calculated plot to deceive for ideological purposes. There was not just a single concoction: there were several concoctions, piled on top of each other.

With Kamin's data, one can now appreciate his real generosity in saying only that: "a benign Providence appears to have smiled upon Professor Burt's labours"², especially since Burt's initial 1943 claim had been (for just fifteen pairs of twins) a correlation of 0.77. I remain sceptical: I would sooner believe in the sincerity of an American televangelist than in the purity of Burt's methods. And if Gregson is prepared to call this no worse than "not usually acceptable", then I for one will need to absent myself from such odd company.

I have no doubt that the "Burt case" has caused some people to vilify other people for reasons other than the advancement of pure science. But until I see what figures and real facts Joynson and Fletcher offer, I am not prepared to suggest who has vilified whom, who is guilty of slander, nor am I prepared yet to reject the notion that both sides are equally guilty. I remain, in all things, sceptical.

Nor would I be swayed by appeals to authority: I do not say Burt was guilty because one clique in a particular society once said he was, and that means I cannot join Gregson and be swayed by another clique now saying he wasn't. I must remain sceptical.

On the other hand, if I were a betting man, my money would not be on Cyril Burt, for while I remain sceptical and hard-nosed, I still know the smell of a ripe rat. I have seen clear and unrefuted evidence from one side, and babblesome polemic from the other. Who cares if Burt was "the leading figure in child psychology in Britain"? That statement is about as valuable as a reference quoting Mengele's qualifications in Germany or Lysenko's in Russia. (Please note, this is an analogy, not a parallel.) I am constrained to remain sceptical.

In short, I am far from credulous. I am, however, incredulous at the poor sort of defence offered by Gregson in Burt's favour. With the defence's total lack of scientific or intellectual rigour, and its facile approach to intellectual honesty, what sort of friend is he? But, then, what sort of rigour can you expect from an attacker who cannot even contrive to get the name of his attackee correct?

I am determined to remain, Gregson notwithstanding, both sceptical and

Peter Macinnis.

1. Stephen Jay Gould, *The Flamingo's Smile*, p 325

2. Leon J Kamin, *The Science and Politics of IQ*, p 59

Rights

While I heartily agree with Nick Cowdery QC (Vol 12, No 3) that everyone has the “right to question”, I cannot agree with his argument. To say that “Human rights are a set of moral principles that are general, universal and supervening. We possess them simply by reason of being human – they are indicators of our humanness”, is simply begging the question. (Please note that “to beg the question” does not mean “to avoid the question”, but “to assume the truth of an argument or proposition to be proved, without arguing it” (COD).

There are no “general, universal and supervening” rights. What is accepted axiomatically as a right in one society may be completely rejected in another. For example, in Iran (and other Islamic societies) the faithful believe that the Koran was written in Heaven and revealed to Mohammed by the angel Gabriel. Since, therefore, it is God’s infallible Word, and God is supreme, no-one has any “right” to question it – look what happened to Rushdie. You may think the premises are wrong (though you couldn’t “prove” that!), but the reasoning is impeccable.

A “right” begins when someone comes to believe that he, she, or someone else is entitled to be, have or do something that hitherto they have not been entitled to. There are lots of people in our community who believe - mistakenly in the eyes of the majority - that they are entitled to this, that or the other, and are quite miffed that so few people agree with them.

However, if you can persuade enough people – generally a majority of those who have influence – to agree with you, then your belief that you or others should be entitled

LETTERS

Letters to the editor on any topic of interest to other Skeptics are welcomed. Letters should generally be restricted to no more than two pages of typed script.

to whatever you have in mind becomes a right. For example again, Abraham Lincoln believed that all men should be free regardless of colour or class (on seeing a Negro slave auction he is alleged to have said: “One day I’m going to hit that thing, and hit it hard!”) – a view not shared by very many of his contemporaries.

However, when he finally managed to persuade the North (by argument) and the South (by force of arms) to agree with him, his belief in universal freedom became a “right” in the USA (but still not accepted, even today by everyone).

An item in the *Sydney Morning Herald Good Weekend Magazine* of 19 September (p 63) shows the process actually at work: “He began a successful campaign for what he called “window rights” for the citizens of Vienna, described thus: ‘The occupant of an apartment must have the right to lean out of his window and to decorate the outer wall as it suits him as far as his arm can reach, so that one can see at a distance that an individual human being is living there.’”

“Rights” are not natural and universal “laws” beyond human control, like, for example, the Second Law of Thermodynamics. If this were not so, why was it necessary to

draw up the International Bill of Rights referred to in Nick’s article? These are nothing but a man-made set of international laws.

Alan Towsey
Tahmoor NSW

Philosophy I

Firstly, congratulations to you for one of the best issues of *the Skeptic*. Now for some comments.

I wonder why William Grey (“The process of explanation”) is so impressed by Popper and Kuhn? I thought their reputation, along with those of Feyerabend and Lakatos, had been effectively demolished by Professor Stove in his book *Four Modern Irrationalists*.

Most practising scientists would accept the relevance of induction as a basis of a scientific truth. The fact that something that has been found to be true in the past is a reasonable basis for believing it will also be true in the future, always accepting that the first time it is found to be untrue, it will cause the scientific truth to be shattered.

It was Bacon’s disillusionment with the stultifying logical Aristotelian schooling of his time that made him extol empiricism (“learn from nature, not from books”) and induction, and led to his fame as the father of modern science.

I also question Grey’s peremptory dismissal of verification as a means of discrimination between science and the paranormal. Again, most practising scientists would consider that the ‘acid test’ of a scientific claim was whether it could be verified, whether it could be repeated. Australian Skeptics, since its beginning some twelve years ago, has used verification to test the validity of a paranormal claim with some success – no claim has been

substantiated. There is still \$30,000 to be won by verification.

Next a comment on Free Will. If one uses a scientific approach when making decisions, as all Skeptics do, then one is being deterministic. But then one is also free to make a different decision in the future if the evidence or situation alters.

Finally, I have been unmasked by Geoff Schmidt as a clairvoyant for foretelling that a football team would firewalk. It just shows you can't trust anyone – so please readers, maintain your scepticism

James Gerrand
Kew VIC

Philosophy II

I would like to comment on William Grey's article "The Process of Explanation" in the last issue. His article is fairly representative of current wisdom in the philosophy of science but there is a battle going on over just what scientific rationality is and Dr Grey is not helping his readers to a balanced understanding of the debate: in the text and references he recommends Chalmers, Popper and Kuhn but there is no recommendation for their critics.

Skeptics should not be allowed to innocently drink this stuff without the antidote and they can have my personal testimonial that David Stove's *Popper and After: Four Modern Irrationalists* is a reliable drop. Also David's article and the ensuing exchange in *Encounter* a few years back, where he skewers Popperians for not even reading their man, are good fun.

Philosophers of science are bound to draw examples from science to support their generalisations. The vast bulk of science belongs to this

century, yet the philosophical literature is biased towards the earlier, eccentric days of science and then it generalises globally from there. The degree of data bias and tendentiousness would not survive for long in science itself.

John Snowden
Tarragindi QLD

Dr William Grey responds:

In response to John Snowden's letter, let me warmly recommend that readers take a careful look at Stove's critique of Popper, Kuhn *et al.*

I certainly don't want anyone to think that the profoundly difficult and controversial philosophical questions about rationality and the nature of explanation have been definitively settled. They have not. Not by me, not by Popper, not by Kuhn, not by Chalmers, and not by Stove. So if anyone believes on the basis of my article ('The Process of Explanation', Vol 12, No 3 pp 21–25) that there is unanimity or a stable consensus on these issues, let me assure them that this is not so.

Popper and his successor Kuhn and Lakatos provide one response to Hume's problem of justifying inductive inference. A lot of scientific epistemologists, myself included, think their contribution is interesting and important (though I happen to share Stove's impatience with Paul Feyerabend). Stove however disagrees emphatically, and defends a very different response to Hume's problem.

Let me also add that Stove is a clever, erudite, entertaining and penetrating critic who is fun to read. But I think that his iconoclastic, tendentious, and sometimes perverse interpretations must themselves be approached in a critical frame of mind.

Computer Speak

Each branch of science and industry has its own collection of bizarre stories and unsceptical claims that, when taken together, form a sort of "folklore". Geologists and historians have their literal interpretation of Genesis, physicists have cold fusion and perpetual motion machines, chemists have molecular memory, etc. The computer industry also has its share of claims worthy of scepticism, take for example this extract from the June 1992 issue of *Byte* magazine.

"In an announcement that has generated quite a bit of interest and more than a healthy dose of skepticism, WEB Technologies (Smyrna GA) says it has developed a utility that compresses files larger than 64KB to about one-sixteenth their original size. Furthermore, WEB Technologies says its utility program can compress files that the program has already compressed. In fact, according to the company, virtually any amount of data can be compressed to under 1024 bytes by using the utility to compress its output multiple times."

If that last sentence is true, it would be possible to compress the texts and pictures in all the world's libraries onto a single page of an average paperback book, and then expand it back to its original size at our leisure.

It is obvious to anyone with the most basic knowledge of computer programming or mathematics that this announcement leads to three theories:

1. It's an industry joke which has somehow missed being printed on

April 1.

2. Someone at WEB Technologies is either a prankster or an imbecile.

3. It is the greatest breakthrough in Information Theory this century, and a new category of Nobel Prize will be created and awarded soon.

I personally tend to think that theories 1 and 2 are correct, and I'll explain why:

Data compression techniques are of vital importance to the computer and telecommunications industries. If a television picture, or a string of text, can be compressed before it is stored or transmitted, there is a saving in storage space or transmission time and therefore a cost saving. In fact, we would never have received pictures of Neptune from Voyager back in 1989 without some brilliant work by the NASA engineers who reprogrammed Voyager's computers to use a highly efficient compression technique on the transmitted information.

The first and greatest work on data compression was done by Shannon and Nyquist who founded Information Theory in the 1930s and 40s, when it was proved (this is for mathematicians only):

If a symbol S_1 occurs with a probability of P_1 and N is the number of symbols, then the information content (the entropy) of each symbol is:

$$-\sum_{i=1}^N P_i \log_2 P_i$$

To cut a long story short, Information Theory states that there's a limit to how far data can be compressed before information is lost, and then it would be impossible to expand it back to its original form. This limit is lightyears short of what WEB Technologies is claiming. For

example, I personally use three of the best data compression utilities available and their average space saving performance is about 50%. If the output of one of these utilities is fed back into itself, or any other of the utilities, the resulting file is usually slightly larger! In general, it is impossible to compress a compressed file.

The *Byte* article continues: "According to Earl Bradley, WEB Technologies' Vice President of Sales and Marketing, the compression algorithm used by their utility is 'not subject to the laws of information theory'. The company's spokespersons have declined to discuss the nature of the algorithm." If Mr Bradley is right, I expect a new branch of mathematics to appear overnight, Nobel Prizes will flow like champagne, and I will rush out to buy a copy of the utility.

Greg Keogh
Cheltenham VIC

Poll doubts

It is unfortunate that the survey on Creationism and students was so badly designed as to be worthless. I have heard science teachers complain about multiple choice questions in which all the options were pseudoscience, but this National Poll is an extreme case. The last two options imply that modern man has existed for millions of years, which is not in accord with contemporary scientific thinking, which in the light of molecular biology sees man and even the pre-human chain as being of recent emergence.

Like most people today, I regard the "God Theory" as irrelevant, particularly in science. I have attended a great many lectures in biology and never heard the word

'god' mentioned and never have I been expected to answer theological questions in any science paper. So, if I were faced with this choice I would regard the "God" in each option as irrelevant and put in to distract the unwary as a trick question and I would ignore it and say yes to the first option which is the only one which contains any truth, namely that "man, pretty much in his present form has existed for 10,000 years". And so I, a person who has never held any religious beliefs, would be counted as a Creationist.

The design of the Newcastle survey was much better, but as admitted, it left a lot to be desired. Better designed surveys have proved that young people these days are immensely ignorant of anything to do with theology and so, while Skeptics would be familiar with the fine distinctions between "Creationists" and "theistic evolutionists" most people would regard them as just two types of Creationists. To most people there are only Creationists and atheists!

Clearly until some really scientific surveys are done there is no justification in the State funding of any "National Committee" and that is what I shall be advising the Government.

Keith Rex
Paddington NSW

Probability

In (Vol 9, No 3 p 24) R Walding asks: "Dr H G Scott commented in one letter that you can't test the validity of [an] axiom with methods which depend on the truth of the axiom. McCusker says: sure you can – the proof is a proof by reductio *ad absurdum*. Who's right?"

Mathematical theories are not

right or wrong, they are self contradicting or not. The problem we face in the McCusker case is: is a mathematical model of a physical situation adequate or not?

For deciding this question, you need, of course, an exact mathematical description of your model. The words 'probability theory' here says not enough.

Imagine a roulette wheel, which is known to produce any number with an exact probability of $1/37$. Because it is a real wheel, if you play again and again the axle will be deformed, with the result that some numbers come up more or less often. Normally you will not say that this disproves probability theory, but that your additional assumption that the probability of a number is always constant ($1/37$) is invalid. If you drop this and take probability as a function of time (or use) $p=p/t$, problems will cease.

So even if McCusker could present a real effect, he's still far from having probability theories disproved.

Note that, if you have a real effect, e.g. the roulette wheel, you can use the correct probability theory to predict the outcome and earn a lot of money.

Gerard Huber
GWUP (Sceptics Organisation)
Schierling, Germany

Tribalism

May I comment on the President's message in Vol 12, No 3?

Science and reason are exercised, not abandoned, in recognising our heritage of colonial thought patterns. That process created 'the native' – an inferior, savage, ignorant, tribal and sub-human being ripe for dispossession, extermination, exclusion and exploitation - from

whom, therefore, we have nothing to learn.

Considerable ecological and social havoc has been wreaked - especially on many Third World countries - by Western experts in agriculture and economics. The more open of them now tap into indigenous knowledge and experience accumulated over hundreds of generations, and often of relevance in their own societies.

This is not a reversion to tribal society: but it challenges the way we use such words, and the attitudes they underpin. Why, for example, are World Wars I and II and the current turmoil in Yugoslavia so rarely described as primitive tribal conflicts?

Listening to indigenous peoples – especially in the land in which we have chosen to live – can also help us know ourselves better and can provide a new perspective on many of our institutions.

For example, the songs of Kevin Carmody – *Pillars of Society* and *Thou shalt not steal* - and poems like Maureen Wason's *Memo to JC* – are as effective as scriptural exegesis in challenging religion.

Another example: an Aboriginal man educated in the Catholic tradition offered this conundrum:

1. "Tens of millions of Aboriginal people lived in this land before the Gospels arrived here in the luggage of the colonisers. There would have been a proportion of them who sincerely sought to find God, and to behave properly. According to Catholic teaching, such people would get to heaven."

2. "According to the doctrine of the Communion of Saints, the blessed in heaven look down on us, and are able to intercede on our behalf - St Christopher to ensure a safe journey, St Anthony to help us find those lost keys."

3." If all those Aboriginal souls are up there in heaven, and are in a position to help us, how come we've

copped so much shit over the last 200 years?"

A variant also came from an Aboriginal person being wooed by Christians of a more fundamentalist bent, for whom heaven is only open to those who have heard of the Lord Jesus. His dilemma: the choice between spending eternity with these new-chum evangelists, or sticking with the tens of millions of his own mob, wherever they are.

Finally, there is wisdom in the rejection of the biblical account of the descent of all people from Adam, by the Aboriginal child in Sunday School: "No, that's not right; we're not his mob. If he was our mob, he wouldn't have worried about the apple; he'd have eaten the snake!"

Wow! What would the world be like if he'd done that?

Richard Buchhorn
West End QLD

Barry Williams responds:

It could probably be argued, although I would not subscribe to it, that we would all be better off if our forebears in Asia, Africa and Europe had decided to remain as tribal societies and not to become civilised (in the original meaning of living in cities). The fact is that they did and we, as heirs to that decision and all the consequences, good and bad, that flow, are stuck with it.

While not disagreeing that tribal cultures contain much wisdom that is admirable, I stand by my view that the problems of a world containing 5.5 billion people are unlikely to be amenable to solutions that are appropriate to tribal societies. Nor is there any chance, short of a massive catastrophe, that we will revert to tribalism.

This appears to me to be the same sort of hankering after a lost "Golden Age" that informs much of the thinking of those whose ideas we question - a Golden Age which, in my opinion, never existed.

China

The problem with trying to prove a point is that sometimes you try too hard that you overlook contrary evidence. I am afraid that may have happened to Mr Coogan in “No Ducking Chinese Quackery” (Vol 12, No 3) when he tried to prove that “[China’s] population did not increase significantly until Western man arrived in sufficient numbers, bringing Western medicine and western hygiene”.

I don’t know a lot about Chinese history, but to my untutored eyes the population graph tells an interesting story. Unfortunately it is not the one Mr Coogan tries to force.

The graph starts with a catastrophic decrease that continues for two and a half centuries. I assume this reflects an equally catastrophic chapter in Chinese history. Then follows a slow, steady growth (with a spurt around 600 AD, presumably representing another interesting chapter) for over a millennium, until the middle of the sixteenth century. During this period the population increases fifteen-fold “from 4 million to 60 million”. The pace picks up with a doubling of the population in the next two centuries - approximately 1550 to 1750. This happens well before meaningful contact with Europe, not to mention well before meaningful European medicine.

The next hundred years – approximately 1750 to 1850 – shows a further acceleration of the growth rate, with a trebling of the population. Once again they presumably managed this without Western medicine, as it still tended to kill more people than it cured. For some reason, the population then almost levels off until the middle of

this century. This presumably is due to internal Chinese matters. Strangely enough, this corresponds to Western medicine and hygiene coming of age and a population explosion in Europe.

Finally the growth rate again accelerates in the last half of this century, doubling in fifty years and at this time, Western medical know-how and China’s population at last coincide.

In summary, China’s population explosion really doesn’t seem to have a lot to do with the development of Western medicine and hygiene, as they managed most of their growth before there was such a thing as “modern medicine”.

There is such a thing as trying too hard to prove a point...

**Marta Sandberg
Bridgetown WA**

Free Will

Why does Graham Preston (Vol 12, No 1) think we require a non-material mind in order for Free Will to be expressed? He says “...there is nothing beyond our chemistry with which to make choices.” I would submit that we make choices **with** our chemistry. The sum total of electro-chemical activity in our brain from moment to moment constitutes a mind which is self-aware and aware of the body in which it resides, and is able to make choices regarding that body. Keep the prison gates shut!

In response to Keith Rex’s notion (Vol 12, No 3) that it is a myth that HIV causes AIDS, I suspect he is under the influence of the dreaded (and utterly discredited) Dr Robert Duesberg. It is so well established that HIV is the primary cause of AIDS it seems ridiculous to waste space even discussing it. There are,

however, co-factors which seem to trigger the virus’ activity. It can hardly be a coincidence that over 95% of people with AIDS test positive for HIV. In those few who don’t, the virus, which mutates constantly, is most likely in the form of a strain which is sufficiently altered to elude the testing procedures presently available.

**Danny Witmer
Redfern NSW**

Poll Response

In *the Skeptic* (Vol 12, No 3), Barry Price wrote: (p.29 “One cannot think of any reason, in the light of these poll results, why it cannot be said that 10% or more of all year 12 students or even of all high school students, espouse creationism”(p31) “...1 in 8 Year 12 students who have chosen to do biology, after making the cutoff mark to attend university, believe the Earth is less than 10,000 years old...”and (p31) “It is extremely unlikely that the belief that the universe is less than 10,000 years old is some kind of selective virus which only attacks those high school students who have just left school and decided to do biology at university. It is highly probable that biology students at other tertiary institutions would poll around the same as those entering university as well as those who leave school and join the workforce. One can think of no reason why they should not”.

I can: the Fundamentalist Clubs/Societies on tertiary campuses. During Orientation Week particularly, these have a significant influence while attempting to inject into the newly arrived students the ‘selective virus’ of Fundamentalist Christianity. One of their core beliefs is Young Earth Creationism. As a consequence of their activities, the

rate of belief in Creationism will increase (I suspect more than double) from late year 12 to early 1st Year at University. I gather that these Clubs/Societies are biggest in Melbourne and Sydney and all but non-existent in WA and Tasmania, which is consistent with the survey results. To test this view, I would like to see the survey given to those Year 12 students intending to go to University (a) before they leave secondary school, (b) after Orientation Week and (c) at the end of the first year. Perhaps it would be less difficult to survey all Year 12 students and add to their questionnaire a section which asks whether or not they intend to go on to University. A comparison of the results for those students intending to go on to University vs. those who are not would, I think, show no statistical difference. The results would be interesting.

Animals

Albert Braunstein in *the Skeptic* (Vol 12, No 3) states that in the Bible, clean animals are only used for sacrifice. The Bible states that the list of clean animals was given by Moses to Israel before entering the promised land. These were used for the diet and since the priests had the right to eat the remnants, also used as sacrifice. Noah was ordered to take aboard seven pairs of clean animals, presumably to eat, or his family would have starved on the long voyage. He had to have at least one pair left to sacrifice after the grounding of the Ark and, of course, one pair of each animal to propagate the species, otherwise today we would have no fish with scales, nor ruminants with cloven hooves. The details on clean foods, diet and sacrifice are found in *Deuteronomy* and *Leviticus*.

The exact number eaten from the seven of each should be known to a flood expert such as Carl Wieland, or his mentor Henry Morris, who has solved an even knottier problem about the origin of the Universe by asserting that God was the only eyewitness. According to Morris, Adam carried away from Eden tablets of stone whereon God had written with his finger the six day creation account reprinted in Genesis. An archaeologist who found those tablets would not only know what language God used, but would have an example of His handwriting. (Wow!) Surely one of these 'experts' can clear up the matter of how Noah knew which animals were clean hundreds of years before Moses was given the list.

Oh, I nearly forgot what I set out to answer. "Ritually clean" is used in the much praised OT 1976 translation by the American Bible Society. Presumably it is used for purposes of clarification. After all, those puzzled by references to "clean animals" might think it has something to do with Gammawash.

Barry Price
Brookvale NSW

Fraud

The exception that proves the rule. According to Stephen Murray-Smith in *Right Words* (Viking 1989) this expression is used "only by people who do not know what it means".

Peter Macinnis in his paper "Seven Types of Science" (Vol 12, No 3) states "Fraud happens when a scientist takes a short-cut and concocts a few results that he (I am not being sexist here: in all the known cases so far, it has been a 'he'..."

In 1991, the story broke of a senior scientist Thereza Imanishi-Kari accused of faking her results on a

1986 paper while at MIT. A report to the US National Institutes of Health found a "pattern of data falsification that began before the 1986 paper was published and ... raised questions about whether some crucial experiments were ever performed at all." (*Time*, April 1, 1991) Macinnis could be forgiven for dismissing it all as an April Fool's joke.

In an appendix to their book *Betrayers of the Truth*, William Broad and Nicholas Wade list 34 cases of scientific fraud from Ancient Greece to 1982 when the book was published. All of the perpetrators were male (I've assumed here that the Piltdown hoaxer was a 'he'). We now have the exception that tests the rule.

Betrayers of the Truth is a fascinating account of the history of scientific fraud and the way science 'really' works. Since reading about a study on conditioning by J B Watson, which later psychologists have been unable to replicate, I am no longer afraid of white rats.

Albert Braunstein
Carnegie VIC

Theism?

Could you please ask Barry Price to expand on some of his statements. He claims (Vol 12, No 3) that a Theist believes in an impersonal god. But to the best of my knowledge a Theist is one who, on the contrary, believes in a personal god. He is claiming that Christians are, therefore, not Theists.

Secondly, is Barry claiming that if one believes that evolution has meaning and purpose then one is not an Atheist (a position with which I agree), or is he claiming that if one confesses to having meaning and purpose in one's life then one cannot

be an Atheist? This latter position is held by a tiny minority within the Existentialist clique, and is usually an argument about definitions of Nihilism rather than of Atheism.

David Miller

**Atheist Soc. and Existentialist Soc.
Melbourne**

Help Needed

I am currently assembling a comprehensive library resource in the Australian Museum on the topic of Science vs Creationism (the Young-Earth, Noah's Flood variety). One problem in keeping track of creationist activities in Australia, and countering them, is that no academic institution, to the best of my knowledge, maintains a 'Creation Science' library reference collection.

At a time when real scientific journals are discontinued for lack of funds, it is understandable that neither the university libraries, nor the Museum, can justify outlaying scarce funds to buy such non-scientific items. There is also a limit to what one can buy personally. Meanwhile, creationist publications (local and imported) proliferate like flies and are being distributed the length and breadth of the continent.

Contributions to our Museum collection of 'Creationiana' would be gratefully received and made available to anyone who needed them. So, don't throw your creationist garbage away – recycle it, and put it to good use. I need surplus and/or duplicate articles on this topic – magazines, videos, tapes, books, Australian and American (e.g. Morris, Gish, Slusher etc.), both public school and general (ie religious) versions.

For example – I have an incomplete set of the CSF's quarterly magazine *Ex Nihilo*, now *Creation Ex Nihilo*, with numerous gaps that I would like to fill, preferably without putting cash into the coffers

of the CSF! So can anyone supply copies of the following issues?

Vols 1 (pts 1–4); 2 (pts 3, 4); 3 (pts 3,4); 4 (pts 1–4); 5 (pts 1–3); 6 (pt 3); 7 (pt 1); 9 (pts 1, 2); 12 (pt 2); 14 (pts 1–3).

Also needed: copies of CSF's more 'prestigious' *Technical Journal*, edited by our old friend Dr Andrew Snelling and tricked out to look like a real scientific publication.

Surplus copies of such items are invaluable for loan to media researchers and as student teaching materials, illustrating first hand the devious methods used by creationists to misquote and misrepresent scientific discoveries. I expect most response from those of a sceptical bent but, in a spirit of ecumenism, I am quite happy to accept such donations from creationists, many of whom are known to surreptitiously peruse these pages. One such anonymous donor generously sent me, two by two, some 20 nauseating little booklets in the Jack Chick series (*Big Daddy; Have you been Brainwashed?*).

All donations should be sent to me at the following address, preferably in a brown paper wrapper in case the postman thinks I have flipped.

**Dr Alex Ritchie
Palaeontologist
Australian Museum
6-8 College St
Sydney NSW 2000**

Public Meetings

Some of your Sydney readers may be interested to know about a series of three public meetings with exceptional speakers, all of whom are sceptical if not actually Skeptics, and all visiting from overseas. They all hold doctorates and the first speaker has two. Dr Dr Joachim Kahl's first doctorate was in Protestant theology. After leaving the Church in 1967 he completed a second course of studies in philosophy, sociology and political

science at the University of Frankfurt.

Dr Dr Kahl maintains that the gospel of Christ is corrupt in its very essence and is responsible for the persecution of the Jews, discrimination against women and for the suppression of sexuality.

A public meeting is being jointly held by the NSW Humanist Society and the Rationalist Association at 4.00 pm, Sunday, December 13 at Parramatta Town Hall to hear Dr Kahl.

Australian author, Dr Dorothy Rowe, will be visiting us from the UK, where, for many years she was head of the Department of Clinical Psychology in North Lincolnshire. She believes that many people live lives full of frustration, aggression, resentment and loss because they were brought up to believe they could have everything. When the Church and State tell us that they can give us both security and freedom, they are bamboozling us. They are pretending we can have both. We are deceived that good will be rewarded. Parents, state and church manipulate us, but by analysing their messages we can find the source of the problems and set more realistic goals for ourselves.

A public meeting to hear Dr Rowe will be held at 2 pm Sunday, February 21, 1993 at the Dougherty Centre, Victor St, Chatswood.

Dr James Birx, professor of Anthropology and Sociology at Canisius College, New York will be visiting in April and will be guest speaker at the Australian Conference of the Council of Australian Humanist Societies to be held in Sydney. Further details still to be arranged.

More details can be obtained from NSW Humanist Society Secretary, Mollie Campbell, Ph 389 4559

**Ann Young
President
NSW Humanist Society**

Abductions

Re your comment (Vol 12 No 3 p 11) on the absurdity of someone comparing a correspondence Bible college in Orlando with the prestigious institution at Harvard, I think you ought to know that the gap seems to be narrowing. The Professor of Psychiatry at Harvard Medical School, John E Mack MD, has gone on record (in his foreword to David Jacobs' *Secret Life*, 1992) as saying that:

"Population surveys suggest that hundreds of thousands and possibly more than a million persons in the United States alone may be abductees or 'experiencers'." Moreover his experience as professor of psychiatry qualifies him to dismiss any interpretation of these experiences other than the literal one, for:

"Psychosocial hypotheses, at least in the Western materialist sense, are difficult to take seriously."

More recently, he has gone on record as affirming his belief that Linda Napolitano was indeed abducted from the window of her 12th-floor Manhattan apartment.

The prospect of American citizens in need of psychiatric help seemed bleak enough when qualified psychiatrist Edith Fiore declared her commitment to the extraterrestrial hypothesis in general and the abduction scenario in particular (ref *the Skeptic* Vol 10, No 1). But now we have the prospect that entire classes of Harvard-trained medicos will go forth annually, prepared, with the blessing of their late director of studies, to take their patients' abduction fantasies as literal fact.

Could a Florida bible college do more?

Hilary Evans
Tranquil Vale London England

Items for Sale

Australian Skeptics has a number of items of interest for sale to subscribers. Some are available from the national committee, while others can be obtained from the state branches. We list these items below, together with the addresses from which they can be purchased.

the Skeptic Back Issues

Set of 1986 issues \$10
Set of 1987 issues \$15
Set of 1988 issues \$15
Set of 1989 issues \$15
Set of 1990 issues \$18
Set of 1991 issues \$18
Set of 1992 issues \$18

A compilation edition of all articles from 1981–1985 will be available in the new year. Price to be advised.

Available from:

PO Box E324 St James NSW 2000

the Skeptical Inquirer Back Issues

We have all back issues of *the Skeptical Inquirer*, published by CSICOP in the USA. In 1976 two issues were published under the title *The Zetetic* and in 1977 there were also only two issues. From 1978 to date there have been four issues per year.

We can supply a comprehensive list of articles published in the SI on request.

Back issues \$10 each.

PO Box E324 St James NSW 2000

To subscribe directly to *The Skeptical Inquirer*, send US\$25 to:
Box 703 Buffalo NY 14226-0703

Books

We have books covering sceptical topics. Some are available from branches where shown. * denotes limited quantities available.

Skeptical- sceptical views on 36 paranormal topics. Published by the ACT Branch.

Price \$7.00

Creationism – an Australian Perspective Published by the National Committee.

*** Price \$10.00**

Creationism – Scientists Respond Published by the Victorian Branch.

Price \$6.00

To Hell with God Steve Cooper see review p 45

*** Price \$12.00**

Et tu Judas. Then Fall Jesus Gary Courtney see review p 45

*** Price \$19.00**

Available from:

PO Box E324 St James NSW 2000

T-Shirts

Original Skeptics T-Shirts and Windcheaters featuring the Ron Tandberg cartoon shown on the cover of Vol 12, No 3, are available from the Victorian branch.

T-Shirts (large and extra large) **\$15**

Windcheaters (20-22-24-26) **\$25**

Plus \$4.50 postage per order

From GPO Box 1555P

Melbourne VIC 3001

Sale Special

T-Shirts featuring "Bent Spoon" motif as displayed in Vol 9, No 4. Limited quantities in Sizes M & L

Price \$3.00

Plus \$3.00 postage per order

PO Box E324 St James NSW 2000

Obituary

With regret we report the deaths of four of our long standing Skeptics during the past few months. John Fitzgerald of Frankston, Colin Steel of Newcastle, Dr Jim Woolnough of New Zealand and Heinz Harrant of Randwick had all been subscribers and contributors to *the Skeptic* for several years.

Myee Allison and Gerry Harrant, executors of Heinz's estate wrote to us, in part, "As Heinz died as a confirmed skeptic, please regard any ectoplasms or apparitions claiming to represent his person with care if not with derision. He would have considered it important that you maintain your faith in your disbeliefs."

We will do our best to comply and we extend our sincerest condolences to the families of these sadly missed Skeptics.

Winners

At the Great Australian Science Show held in Melbourne in July, the Victorian Skeptics awarded prizes to visitors whose names were drawn from a cranial containment module (hat). The prizes, consisting of a grand prize of the nine volume *Encyclopaedia of Australia* and four annual subscriptions to *Australian Geographic* were generously donated by AS Patron Dick Smith. The recipients, whose full addresses are not printed for privacy reasons, are listed below:

Grand Prize:

Ms Linda Jullyan, Richmond VIC

Annual Subscriptions:

Mr Alistair Hamblin, Elsternwick

Mr Justin Dinale, Northcote

Mr Thomas Van De Hoef, Koo Wee Rup

Ms Kelli Wendel, Hawthorn

About our Authors

Greg Czechura is a member of the Queensland committee, works at the Qld Museum and is probably deaf.

Ian Drysdale is the President of the Victorian branch. He is an engineer and inventor and does strange things to motor cycles.

Harry Edwards, Secretary of the national committee, is growing a beard, which is just as well, considering how he looks without one.

Dr William Grey, a philosopher, is said by his enemies to sleep under an exact scale replica of the Great Pyramid of Khufu.

Peter Henderson is doing post-graduate work at Macquarie University on the impact in Australia of the American Christian and secular right.

Informal is a member of the new Tasmanian committee and a literary critic who did not collect 90,000 votes in the Victorian election.

Peter Johnson is a non-psycho cartoonist who lives in Adelaide and has never been to Atlantis.

Adam Joseph, a member of the Victorian committee, is a professional media consultant and an amateur alderman.

Professor Colin Keay is an astronomer who is frequently mistaken by customs officials for a sheep farmer.

Peter Macinnis has spent many happy years teaching people the illogicality of head-butting a cactus. Some things never change...

Tim Mendham, a national committee member, is not related to the famous astrophysicist with a totally different name.

Dr Andrew Parle is a member of the national committee, a physicist and the world's leading authority on Null Zones.

Professor Ian Plimer is Head of the School of Earth Sciences at Melbourne University and a member of the Victorian committee. His ambition is to get his name on every page of *the Skeptic*.

Geoff Schmidt, prominent pump expert, was once observed to remain silent for three minutes. This is believed to be a record.

Dr Ken Smith is a Senior Lecturer in Mathematics at Queensland University and a Life Member of Australian Skeptics.

Dr Bob Stevens is a physicist, a member of the Victorian committee and an amateur astronomer. Although of English birth, he fits in quite well.

Sir Jim R Wallaby, wit, bon vivant, champion of the oppressed, would like to take this opportunity to deny all those rumours that have been circulating about him.

Barry Williams is the President of the national committee, editor of the *Skeptic* and claims descent from a long line of successful masochists.

Renew Now
