



the Skeptic

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a journal of fact and opinion



Thinking critically
Seeking the evidence
Challenging the claims

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Vale Barry Price

1935-1995

We are saddened to report the death, on November 11, of a good man and courageous teacher, Barry Price. Barry Price taught both science and religion in the Catholic Education system and was the science specialist at the CEO until his early retirement due to ill health.

Ian Plimer wrote this tribute to his friend.

Barry Price died on November 11 at the age of 60. He was a multifaceted person and the facet for which Skeptics knew him best was his passion - anti-creationism. But Baz had wider interests and a love for scholarship, poetry, physics and the Bible.

His passion combined his knowledge of theology, science and education. His calling and commitment was to the next generation. His last book, *The Creation Science Controversy*, (Millennium, 1990) was a sequel to *The*

Bumbling, Stumbling, Crumbling Theory of Creation Science (Catholic Education Office, 1987).

In these books he used theological scholarship and science, intertwined with devastating humour to expose the ethical, moral, scientific and religious bankruptcy of creation 'science'.

Even when the creationists knew that Barry was terminally ill, they relentlessly pursued him with litigation, yet he never bowed to their pressure. Such was the strength and courage of Baz and such is the Christian 'charity' of the creationist movement.

Even while Baz was dying, he lived; he became Teflon coated against creationist attacks and retained his passion, modesty and humour.

In *The Creation Science Controversy*, Baz gave us his maxim which lives on: "The mind is like a parachute - it only works if it is open".

Vale Barry Price.

Renewal Time

Important Incentives to Renew Early

Subscribers are reminded that if they receive a Renewal Notice in this issue, then it is time to dig out the old cheque book/gold bullion reserves/title deeds to your children, and send an urgent response to our PO Box.. It helps us enormously if subscribers renew their subscriptions before the end of the year.

As an incentive we are offering to the first 100 one-year renewals we receive a copy of Harry Edwards' book *Skepton*.

For the first 100 three-year renewals, we offer a copy of Harry's other book *Magic Minds, Miraculous Moments*.

If you do not receive a Renewal Notice, it probably means that your subscription has not yet run out (or that we have had an administrative cock-up).

If you are one of these lucky individuals, but feel that you are missing out on Harry's distilled wisdom, please advise us and we will send Harry around to spend the weekend with you.

Our numbers reached 1500 this year, after one of the most successful years yet. Please renew early and encourage your friends to subscribe too, to make 1996 even more successful.

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News and Views

We often hear the complaint, from proponents of various paranormal hypotheses, that there are really very important lessons to be learned if only 'they' (the government, the scientific 'establishment', the Skeptics etc) would spend the money to do the research. Why these people imagine that 'they' should spend hard earned money on learning how to bend spoons with the mind or to make inaccurate predictions about the future is anyone's guess. However, they (as opposed to 'they') can now rest easily in the knowledge that the giant Japanese Sony Corporation has been supporting an ESP laboratory for the last four years.

So far there have been no results from the laboratory leading to new products from Sony (the Bendman Spoon Disruptor?) and Japanese scientists are highly sceptical about the testing procedures used. One, Prof Yoshihiro Otsuki, a physicist at Waseda University, is reported to have said "If this is reported abroad, I will be ashamed - as a scientist I will be ashamed that Japan's backwardness compared with Europe and America has come out". We have to reassure Prof Otsuki that he needn't worry. Europe, America and Australia have plenty of people just as silly as some in Japan.

But we hope the 'believers' will now stop whingeing that no-one takes their 'abilities' seriously. Mind you, I will not be holding my breath until Sony produces its first paranormal product.

We thank **Dr Dave Wheeler**, formerly of the Australian Skeptics committee, and now teaching physics at Mahanakorn University outside Bangkok for sending us this report from the *Bangkok Post*.

* * *

One of our aims in the Skeptics has always been the promotion of public understanding of science through the news media. We are therefore disturbed that the Sydney Sunday newspaper *Sun Herald* has dropped the science column written by **Dr Peter Pockley**, one of Australia's best known and most perceptive writers on matters scientific. Peter is also a

former winner of an Australian Skeptics Journalism Award.

The paper is, of course, entitled to publish what it wishes, however, it is doing its readers no good service by removing its only science report, while continuing to publish an astrology column. This seems to reflect a trend abroad to denigrate science while promoting the mindless fatuities of pseudoscience and that can only be to the detriment of the rational understanding of the world.

* * *

We have spoken in these page many times about the phenomenon of fire walking and the mythology that surrounds it. We have even conducted our own fire walks to show that it is an activity relying purely on the laws of physics for its intuitively improbable effects, rather than any mystical mind-over-matter skills that can be taught by a motivator for a (usually considerable) fee.

Now we read in *New Scientist* (Nov 11) that researchers in Arizona have found that ordinary asphalt pavements can reach temperatures of 68C when atmospheric temperature is 40C. The article reports that human skin begins to burn at 44C and that even momentary bare-footed exposure to the pavements can result in second degree burns.

So why can we walk on coals at 600C without ill effect and receive serious burns if we walk on asphalt at less than 10% of that temperature? It is all to do with heat content and transference. Coals at 600 degrees have a relatively low heat content and it takes some time for that heat to transfer to the feet of someone walking across them. Asphalt is obviously a much better conductor and has a much higher thermal mass. It's all to do with fundamental physical properties. And I can attest that walking across coals is nowhere near as painful as walking across a road in summer (see Vol 13, No 4).

So, the next time someone tries to sell you 'mind-over-matter', ask them to stroll a few barefooted steps along a road in mid-summer, just to show how good their mind is. **BW**

We thank **Colin Groves** of the ACT Skeptics for this news item.

Keeping faith?

I am almost ashamed to admit how many hours I have wasted attending creationist meetings. They are always the same; not only the misrepresentations of science, but the claims that they are winning - that a growing number of scientists are becoming creationists, for example.

Quite often during question time (on the occasions when questions are allowed, that is) someone from one of the mainstream Christian sects stands up and complains that creationists are hijacking the word "Christian", that literalism is not essential to Christianity and may even be inimical to it. The speaker will retort - severely, because creationists hate "theistic evolutionists" even more than they hate the rest of us infidels - that on the contrary Christians need a belief in Creation, as shown by the fact that they are forsaking the mainstream churches in large numbers in favour of those that preach creationism. And there the matter rests, because no-one in the audience has the figures to challenge this bald assertion.

Well, now we do have the figures. Jonathan Kelley, director of the National Social Science Survey, has published "Keeping faith? Declining church membership in Australia", in the "Worldwide Attitudes" series. He collated religious affiliation data for 2322 Australian citizens in all states and territories; and, in particular, changes in religious affiliation from childhood.

16% are Catholic, though 26% were raised in this sect; 12% Anglican, down from 30%; "other mainline Protestant" (Presbyterian, Uniting, Baptist, Lutheran) 11%, down from 23%; "other, mainly small Protestant, denominations", 8%, exactly the same as the proportion raised in them; 1 % Greek Orthodox (also unchanged). [The creationists would be almost all of the smaller Protestant sects (OPROT), and a fair proportion of the "other mainline Protestants" (MPROT)]. 24% of the population are "nominal Christians (those who claim

a denomination but never go the church or hardly ever)", up from 6%; and 29% have no religion, also up from 6%.

The survey recorded who had actually changed denominations. 46% of Catholics had left their faith; 77% of Anglicans, 77% of MPROT, and 68% of OPROT. Just 2% of Catholics and 5% of Anglicans had switched to MPROT, and 4% of each to OPROT; 16% and 28% respectively became nominal, and 22% and 27% abandoned religion. Of those raised as MPROT, 6% had switched to OPROT, 24% had become nominal, 31% non-religious. Of the diehard creationist OPROTs, fully 20% had become nominal, and 17% had lost all religion.

Maybe immigrants are different; in fact, I strongly suspect they are. But among the Australian born there is a widespread loss of religion, and the creationist sects are in no way going against this trend. Oh, except for the Greek Orthodox; they (on a tiny sample) do seem to be holding their own.

* * *

Those to whom coincidences denote a deep and meaningful underlying purpose in the Universe would have been flabbergasted by a recent event that happened to your humble Editor. Several weeks ago, I appeared on an ABC TV *Late Line* programme discussing the phenomenon of 'alien abductions'. Some weeks later, I received a phone call from Canberra (no, it was not ASIO telling me to button my lip).

"Am I speaking to Barry Williams?" asked the male caller. I allowed that he was correct in his assumption, to which he responded "My name is Ken Williams. I saw you on TV a few weeks ago and remarked to my wife that you were the double of my late grandfather. I thought nothing more of it until I saw a notice in the local paper that the Canberra Skeptics were having a function, with a phone number to ring. I rang the number and asked for your number."

Naturally, my first thought was to deny that I had ever met his grandmother, but a certain inflection in his voice suggested that my interlocutor was not exactly in the first flush of youth himself, so I enquired "How old are you"?

"I'm in my seventies" he responded. My relief was palpable - even Harry is not old enough to have a grandson in his seventies, let alone a veritable stripling like me.

An amiable conversation ensued regarding possible common ancestry at some Neolithic time in Welsh history and ended with best wishes all round. It wasn't until later that I realised I should have mentioned that, in appearance, I strongly favour my mother's side of the family and not the paternal Williams'.

* * *

Connoisseurs of Australian iconography will be interested to know that Australian Skeptics Treasurer, **Rafe Champion**, and his mother-in-law, the well known writer **Ruth Park**, have just had published a biography of Les Darcy.

Called *Home Before Dark*, it is the story of the young boxing champion, whose short life and tragic death in America during WWI, has been the stuff of many legends. The book is published under the Viking imprint.

* * *

Sydney's *Daily-Telegraph Mirror*, September 11, 1995, reports that the Turin Shroud (generally agreed by scientific examiners to have been made between 1260 and 1390) may have been a photograph.

According to the report, Art historian Dr Nick Allen, from the University of Port Elizabeth in South Africa, said, "Logic told me it was a photograph. Scientists tell us that photography was not invented until the 19th century so I looked at what technology was available in the 13th century... I found for example, light sensitive emulsions, like silver nitrates. And lenses were made by the Venetians for spectacles in 1275."

Dr Allen recreated the process by focusing an image through a quartz lens of a *camera obscura* on to a sheet of canvas made light sensitive by soaking in silver nitrate and fixed it with ammonia.

Would any of our photographer subscribers care to comment on the plausibility or even possibility of the above? **HE**

* * *

The NSW Department of School Education has abolished the unofficial position of chaplain from all state schools. This follows complaints from several bodies, among which were Jewish and Anglican education offices, that the chaplaincy positions, generally funded by Protestant religious groups, were pushing specific religious ideas on non-Christian or non-religious students.

The NSW Education Department makes provision for Special Religious Education to be given by ministers of various faiths after obtaining parental consent.

The chaplaincy positions differed from the SRE positions. While many chaplains may have been performing useful services without pushing their particular brand of religion, the NSW Teachers Federation, and independent information we have received, indicates that some of them were using the position to promote the pernicious dogma of creation 'science', which is specifically excluded from the NSW education system.

In this case, Skeptics can only applaud the action taken by the Department in keeping children free from this mindless propaganda.

* * *

In a late breaking story (as they say in the best media), we are delighted to announce that our very own Professor **Ian Plimer** has been awarded the 1995 Australian Museum/ABC Eureka Prize for the Promotion of Science.

The award recognises Ian's sterling efforts as a scientist, educator and constant advocate for the scientific method and the public understanding of science.

Many tributes have been paid to Ian Plimer in these pages for his outstanding work in alerting the public to the dangers posed to free intellectual enquiry by fundamentalist religious bigots and we are particularly pleased to see his efforts have now been recognised by the award of one of this country's most important scientific accolades.

Meanwhile, Ian's book *Telling Lies for God* has just been reprinted yet again and is selling extremely well. Readers can get their own copy from Australian Skeptics (see inside back cover for details). **BW**

Vic Round-up

Kathy Butler

Well, P'taah came and went in October. What? you didn't notice? For the the uninformed amongst you, P'taah is from the Pleiades (why do aliens only ever have one name?) and for only \$125 you could have met him ... well actually you would have met Jani King who channels him ... well actually Jani has moved to the USA so she appeared on a TV screen via a satellite link. Anyway, according to P'taah, our lives will be changed for ever by the Separation to Oneness, we are about to enter a new level of Consciousness on the 4th dimension, the Age of Love is coming, etc. etc. There you go, I just saved you \$125 (minus the lunch) now you can stay home and watch the X Files - the acting is better.

* * *

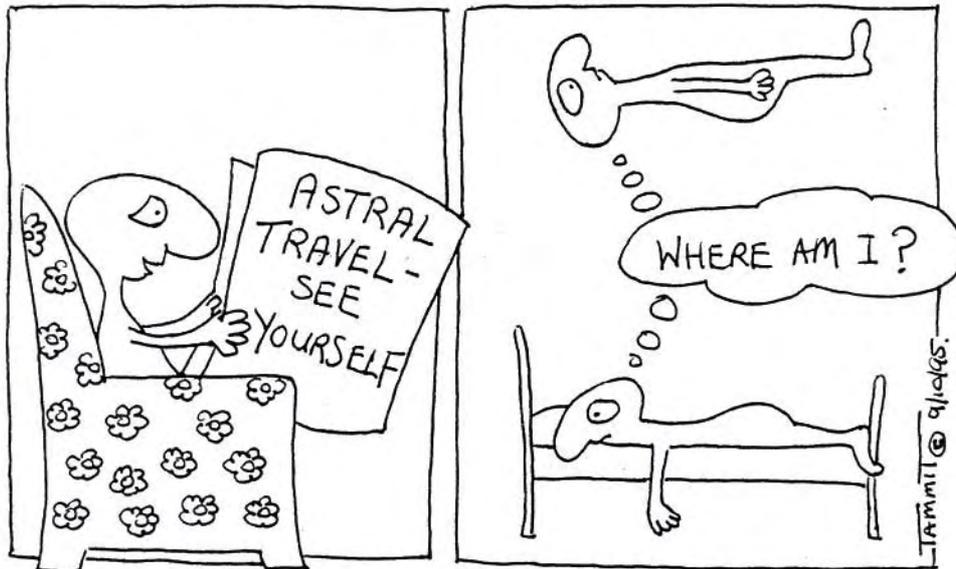
Our friendly astronomer points out that the Pleiades is a nearby formation of extremely young (by astronomical standards - 40,000,000 years), hot (40,000 K) stars, that are still in the process of formation from a gas nebula, which can be seen from Earth. Life there would be very difficult - apart from the stench and the fact that planets would not have accreted yet, nothing in the vicinity would have a stable orbit so you would end up falling into one of the stars. No wonder the locals have transferred themselves to Earth.

* * *

Lovers of equine flesh and wet millinery will realise that the Melbourne Cup has come and gone.

We didn't notice too many clairvoyants, psychics and chicken-gizzard diviners hauling bags of cash away from the track. In fact a well-known local clairvoyant interviewed on the news distinguished herself by picking three horses, none of which placed.

For the record, the Butlers won \$24 in the office sweep - does this mean that picking a number out of a hat is more accurate than interpreting the vibrations of the psychic ether?



The Australian Skeptics' annual National Convention will be held in Melbourne again in 1996. Is it the weather? the restaurants? the Grand Prix? This one, I confidently predict, will be the best Convention ever.

Our overseas guest is an extremely well-known scientist and prolific author (more details later!) and there will also be plenty of local talent. Professor Ian Plimer will attempt to be in Australia to give a talk on whatever is on his mind, unless of

course some distinguished scientific foundation decides to award him another gong and free meal again. We promise the dinner will be better this year - really!

* * *

The increasingly dis-appointing Melbourne Herald Sun did it again recently.

They are running a series on "Great Bible Stories", including one on Noah's Ark. Not content to concentrate on the story part, included was a time-line showing factual dates such as the division of Palestine, but starting with "4000 BC: recorded history begins with the Creation." This gem nestles below some rather questionable "sightings" of Ark remains.

Ironically, this item appeared on the reverse page to an excellent science piece on the unique flora of the Grampians by respected science journalist, Graeme O'Neill.

Graeme is a past winner of an Australian Skeptic Journalism Award. ■

In September the Victorian Skeptics bearded the lion in his den. Yes, we hired a stand at the Melbourne Psychics Festival (despite the organisers moving to a new address and wrongly predicting their new telephone number).

For all you numerologists out there, we gave away hundreds of Skeptics balloons (filled with helium, instead of hot air from neighbouring stands), Skeptical fridge magnets, back issues of *the Skeptic* and generally dispensed advice, conversation and free cold readings (the best value at the Festival and certainly among the most accurate). Accurate but depressing horoscopes and numerology readings were given to all and sundry.

World Round-up

Harry Edwards

Bulgarian Aliens.

Sofia, Sept 11 AP - Lured by three self-styled mediums, about 1500 people gathered at an airfield in northern Bulgaria today awaiting the arrival of eight spaceships piloted by extraterrestrials, police said.

Among other things, the mediums promised the aliens would help this poor Balkan country pay its \$US12.9 billion (\$A17.21 billion) foreign debt.

The crowd gathered in Shtraklevo, 325km northeast of Sofia, after three local women - Radka Trifonove, Zdraka Krumova and Ekaterina Nikiforova - declared that the spaceships from other galaxies would land at 11am. Nothing came.

Half-an-hour after the scheduled arrival, the three told the crowd warplanes flying in the region were scaring off the aliens.

After another 30 minutes, the women declared that the aliens weren't coming because President Zhelyu Zhelev had declined to meet with them.

(*Mendham's Wire Service.*)

* * *

A Prediction that Fizzled

On October 25, 1994, the *American Weekly World News* published some dire predictions by author Robert Carbonne. Based on his interpretations of the Bible (especially Ezekiel, Galations, Collossians, and Revelations). Carbonne warned of killer ice storms on the Eastern seaboard, record cold in the South, blizzards in the Southwest, and a deep freeze in the Midwest.

Said Carbonne, "You're not going to pick up a Bible or the Dead Sea scrolls and read, "Heavy snows... will cripple the U.S. in the winter of 1994 and 1995, but you will find images and symbols that say the same thing."

Incidentally, the winter turned out to be one of the warmest this century!

(*Newsletter of the New Mexican Skeptics.*)

Unlucky 13?

Tampa International Airport's new "Airside A" terminal, which opened in March, "paid attention to travellers and took steps to accommodate them." One example: "There is no Gate 13 because American Airlines did not want to alarm superstitious passengers."

(*St. Petersburg Times.* March 5.)

* * *

Voodoo.

In Miami's Metro Justice Building one will often find a dead chicken or two, a cow's tongue, white powdery dust sprinkled about, a dead goat or some goat's blood. Cuban inhabitants of Miami who believe in Santeria, and Haitian devotees of Voodoo, are fond of using sorcery at the courthouse, leaving behind quite a mess. "Sometimes we find (only) one chicken. Sometimes... three or four." says a member of the building's janitorial staff. "It depends on who is on trial."

(*St. Petersburg Times.* April 10.)

* * *

Psychics Lack Insight.

Saudi Arabia's ailing ruler, King Fahd, is creating turmoil in the kingdom by his devotion to the occult. But he is hardly alone. A series of tragedies, including a soothsayer beating a man to death to rid him of an evil spirit, has forced the government to arrest dozens of soothsayers, astrologers and fortune tellers who presumably failed to forecast their own futures."

(*London Observer,* March 8.)

* * *

Occult Business

41 year old Tyrone Bell of Lakeland is said by detectives to have a

"booming business" in the occult. Sporting a business card claiming such talents as "spiritual counsellor" and "jinx removed," Bell has been arrested for desecrating a grave with a pig's head and issuing written threats. Detectives found over 100 voodoo dolls in his home (some stored in the freezer) and a Satanic shrine in a backyard shed. Beneath his underwear, they found (presumably in addition to the standard equipment) "in a red cloth pouch... more than 100, small, square slips of paper with bizarre drawings and messages such as "Mephistophilis (*sic*) and "Provides invisibility..."

(*St. Petersburg Times.* Apr. 22.)

* * *

Psychic Sexual Harassment

A University Hospital volunteer has alleged that a doctor treating her for heel spurs has been harassing her telepathically. The alleged harassment included "telepathised sexual innuendoes" and "mentally-transmitted threats of rape."

(*Newsletter of the New Mexicans for Science and Reason.* April 12 '95)

* * *

Udder Nonsense

In a form of primitive immunotherapy, herb saundersinjected his cows with patient's blood, then sold them the bovine colostrum (first milk) with the claim that it would cure cancer and other serious diseases.

Saunders sold each patient a cow for \$2500, but not only kept the cow on his farm but charged the patients \$35 a bottle for the worthless nostrum. He was charged with practising medicine without a licence, but the jury were unable to find a majority verdict of guilty.

In my opinion Saunders was definitely guilty of milking his patients!

(*New Zealand Skeptic*)

Great Scot! it's Alex

A tribute to Dr Alex Ritchie on the occasion of his retirement

Barry Williams

Born in a crofter's hut in the windswept fastness of the Western Isles, sent down the haggis mines at the age of seven, apprenticed to a bagpipe tuner at eleven. What was there in these early Caledonian tribulations that ignited the spark in this boy that drove him to a study of geology, culminating in October 1995 in his retirement after 28 years at the Australian Museum? Well nothing really, I just made them up, but the truth about one of Australia's most accomplished palaeontologists is just as interesting.

This is not intended as a comprehensive history of Alex Ritchie's distinguished career, but as a personal reminiscence of the association I have had with him in promoting the cause of rational science in the face of a tide of anti-scientific and superstitious ignorance.

The first time I saw Alex in action, he was unreeling a long piece of string. It was at a symposium organised by the Institute of Biology and other scientific organisations, at which a number of scientists spoke of the threat posed to scientific enquiry by the political machinations of the creation 'science' movement. Alex's piece of string represented the scientific estimates of the age of the Earth and it was knotted at various points to indicate various important events in Earth's natural history. A small knot, right near the end of the string, represented the creationists' claim for the starting point of everything. It was a devastatingly effective illustration of the pathetic pseudo-facts underlying the creationists' case.

Not long after this, I was in the audience at a series of talks given by a visiting creation 'scientist' and assorted home-grown specimens of like kidney. At question time a familiar figure arose and posed, in accents dripping with heather, a very serious question regarding some of the specious nonsense that had been spouted about the age of rocks. (This was before the creationist push had woken up to the fact that questions are dangerous and so they were allowing some.) The speaker tried to answer the question with the standard fatuous *non sequitur*, at which point Alex (for indeed it was him) sought to draw him into a discussion on facts rather than dogma. The chairman of the meeting then tried to silence Alex, saying his question had already been answered and would he please sit down and shut up. This was my cue - leaping to my feet, and in my best public meeting voice, I roared, "Point of order Mr Chairman". Curiously, the chairman allowed me my point, which was that the questioner had the right to ask a supplementary question, and he allowed Alex to speak further. I was rather proud of my intervention because there is no such thing as point of order at a public lecture, nor does anyone have the right to ask supplementary questions. Shortly afterwards the meeting broke up in confusion.

That was not the only time I observed Alex's technique in a public forum. At a meeting arranged by the promoters of yet another Noah's Ark, during question time (a carefully crafted one in which the questions had to be written down

and handed in before the session - the creationists sometimes learn from their mistakes), the speaker made the mistake of admitting that he had no expertise in some palaeontological field, whereupon Alex arose and volunteered that, as he did have such professional expertise, he would be delighted to answer the question. At this, the chairman ordered the guards stationed around the hall to eject Alex. An extraordinary scene followed. Four large guards laid hands on the distinguished scientist who, relaxing his limbs, became an inordinately difficult mass to lift. Meanwhile, those seated around Alex, all sceptical friends, filled the spaces between the seats with their stiffened legs thus preventing any movement of the guards and their loudly protesting burden towards the exit. Shortly afterwards the meeting broke up in confusion.

Again I recall the time when Alex finally put together all the pieces to show that creationist, Dr Andrew Snelling, had been using the same geological evidence to write papers in refereed geological publications, citing ages in millions of years, while at the same time writing articles in creationist publications, citing ages in thousands of years. Mindful, no doubt, of the (probably apocryphal) exclamation of Thomas Huxley in his famous debate with Bishop Wilberforce, "The Lord has delivered him into my hands", Alex called me and uttered very similar words (or as near as I can tell - the heather tends to thicken when Alex gets excited). The questions posed in the resulting article ("Will the real Dr Snelling please stand up?" *the Skeptic* Vol 11, No 2) have never been satisfactorily answered by Dr Snelling. Nor has Dr Snelling ever accepted Dr Ritchie's standing challenge to debate him on the geological evidence for Noah's Flood before an audience of their professional geological peers.

But Alex Ritchie's professional life is not primarily concerned with the demolition of the puerile arguments of the scientific *illiterati*, despite his sterling efforts and successes in that field. It would not be an exaggeration to say that he has been characterised by the creationists as one of the leading tools of Satan on Earth, a distinction he shares with such notables as Mike Archer, Ian Plimer and your humble Editor. Considering the source, it is an appellation to wear with some pride.

That aside, Alex is, first and last, a palaeontologist and it is in this profession that he has made his name, not merely as a digger of fossils, but as a tireless fund raiser and educator on the importance of science.

His efforts in encouraging miners to notify the Museum of any opalised fossils they find; his work in finding commercial sponsors to allow important finds to remain in Australia; his driving force behind the public appeal to raise funds for Eric, the opalised pliosaur; the many dinosaur exhibitions he has mounted that have been the most popular of all the Museum's activities with the public; his remarkable *Tracks Through Time* display at the Museum

charting the evolution of the human species and the Museum Train that visited all parts of the state. It was these latter two activities that caused various creationists to complain to politicians and to threaten sponsors about the displays. To the credit of the politicians and sponsors, the complaints were rejected. All of these activities stand as tribute to Alex Ritchie's professional abilities and to his rare skill as a promoter of knowledge.

His peers have recognised Alex's contribution to science by naming in his honour a number of species, most recently a newly classified family of monotremes. The 120 million year old opalised jawbone of a previously undiscovered monotreme (egg laying mammal) found at Lightning Ridge, differed in many ways from the predecessors of the echidna and platypus. Apart from being much larger than any contemporary mammals in the middle of the dinosaur age, it had the sort of teeth usually found in marine predators for crushing hard-shelled prey. These teeth were divided into four domes by a cross shaped groove and it was given the working name of "hot-cross-bunodon". Of course, such irreverence is not acceptable in the world of science, so the official name of the new family is *Kollikodon*, from the Greek word for bun (it's OK to be irreverent in a classic language). And so we now have a new Australian fossil with the name *Kollikodon ritchiei*.

But the story doesn't end there. In *New Scientist* of October 14, 1995, the story of this fossil and of its new name is illustrated by a photograph. The photo is of a jawbone with four teeth, which only those with the most vivid imaginations could describe as resembling a bun of any kind. After reading the article, I rang Alex to congratulate him on the honour he had received and, in passing, made reference to the curious appearance of the buns eaten by palaeontologists. He told me the story. When he heard the article was going to be published, he sent two photographs, one of the *Kollikodon* and one of the ancestor of the other monotreme's, *Steropodon*, to show the distinctive differences. And which photo was used in the article? The wrong one.

After 28 successful years, Alex Ritchie has retired as palaeontologist at the Australian Museum, but he is not giving up dealing with fossils only to become one himself. He will continue to work in his special field and devote his time to a labour of love.

In 1956, during road works near Canowindra in central-Western NSW, a bulldozer driver uncovered a slab of rock which contained the fossilised remains of some remarkable fish. For many years, these fish were displayed in the museum, until the 1980s, when Alex took serious interest. For a decade he visited the area to try to find the original site, then, in 1993, with the assistance of the Carbonne Shire Council, he struck paydirt. Far from being an isolated pocket of unusual fish, what he discovered was a huge deposit of hundreds of thousands of fish, some up to 1.5 metres in length, many of which are extremely rare and some of which are unique. These fossils, from the Devonian period, are over 360 million years old, much older than the dinosaurs. It is one of the most significant fossil finds of any kind in the world.

Because the deposit is far too large to be accommodated in the Australian Museum, Alex and others set out to convince the local authorities of the benefit to the community of having a world class museum in the region, and so was conceived the Age Of Fishes Museum. (In my view, an opportunity was missed in not naming it Alex's Fish Shop.)

Government agencies and a number of private enterprises have already given support to the project. Internationally renowned architect, John Andrews, has donated his services to design the building and, of course, Alex Ritchie will continue to put his immense energy and knowledge to work to help bring this project to fruition. I encourage anyone who wishes to do so to contribute to the Age of Fishes Museum. For details, contact the museum at the Age of Fishes Museum Project, Gaskill St,

Canowindra NSW 2804. Tel (063) 44 1008; Fax (063) 44 1917.

Personally, it has been my great pleasure, for many years, to know Alex as a friend and as a dedicated Australian Skeptic. He is not merely a great Scot, a great palaeontologist, a great educator. He is truly a great Australian. As Skeptics, we owe a great debt to Dr Alex Ritchie for his work in preserving Australian fossils, for his promotion of rational science and for his courage in standing up for the truth in the face of considerable pressure from the ignorant and the superstitious. I can think of no more tangible tribute to his remarkable career than to nominate him as a Life Member of Australian Skeptics. ■



"There's fish in them thar stones". Alex at Canowindra.

You can Tell by the Smell

How to Identify bad arguments on the basis of the argument alone

Dale Chant

This is the text of a talk given at the National Convention Dinner in June.

In the world around us there are many who seek to persuade us, by means of argument, that a particular proposition or point-of-view is the truth. In itself, there is nothing wrong with this. But what if the person deploying the argument has a vested interest, or has retrospectively created arguments in order to support a dogma? In both cases, we may reasonably assume that the pursuit of truth for its own sake is not the uppermost consideration. How can we tell if a particular argument is designed simply to support a vested interest or dogma? Interestingly, those who argue without any concern for the truth often betray themselves by the types of arguments they employ. This article examines the historical and cultural sources for these types of arguments, explains each type in some detail, looks at some examples from contemporary society, and concludes with an brief excursus into an underlying paradox with regard to the historical sources of argument and modern scepticism.

I am not talking about self-contradictory or circular arguments - these are the province of the logician. My exclusive concern is how to identify persuasion when it is masquerading as argument. So, who invented bad arguments, and where did they come from?

The answer, as with so much of western culture, is Classical Greece. This is not a popular point to make. Most students of western civilisation identify the classical heritage as that which resides in our art, literature, architecture, scientific method, philosophy, mathematics and democracy. But to me, the greatest moulding influence of the Greeks on our own society was the realisation that

- language is an instrument of power
- persuasion is more effective than coercion, and
- we collectively agree to call the best argument true until a better one comes along (the adversarial system of dispute resolution)

This can be both a good thing or a bad thing, depending on circumstances and intention. The negative side of Language as Instrument of Power is called sophistry - a set of techniques for arguing any proposition, no matter how counter-intuitive, fanciful or morally obnoxious it may be. Sophistry was refined to a pitch of perfection by the teachers and philosophers of ancient Greece.

Perhaps the purest modern-day counterpart is the corporate lawyer. I once heard a story, possibly apocryphal, about the 100% Beef Hamburger Company. You may think that a company so named would be legally obliged to sell only hamburgers with a 100% beef content. You may be surprised to find out that in fact, their hamburgers were more than 50% fat and assorted (non-beef) offcuts - ears, tongues and such like. You may also be surprised to hear that, when challenged in court on this, the directors of the 100% Beef Hamburger Company were completely

exonerated of any wrongdoing. The reason? The directors were not the original owners - they had purchased a trade name only, and this does not imply an undertaking to match the standards of their predecessors. This is pure sophistry in action.

But it is not only lawyers who deploy these sorts of slippery arguments. Politicians, business leaders, public servants, journalists, unscrupulous advertisers, military leaders and the powers of vested interest, on the one hand, and new agers and religious fundamentalists on the other, frequently display a marvellous adroitness in the application of sophistry to support their various interests. How did this come about?

Socio-Historical

The reasons why sophistry took hold in the ancient Greek world, is, of course, much disputed among scholars. Even so, it is possible to half-describe, half-explain the pattern of development.

Ionia (now the western side of Turkey) was home to the first Greek philosophers. Thales, Anaximander, and Anaximenes taught and studied here. Why western philosophy should have begun there and at that time is not really answerable, but given that it did, a chain of events can be identified. A little before 500 BC Ionia, populated mostly by Greeks, revolted against the Persians who were their political masters. The rebellion was savagely crushed, but not before many refugees had made it to Greece. These refugees brought with them the influences of the Ionian philosophers, and so philosophical methodology, however primitive, was introduced to the Greek mainland.

The Ionian revolt led in turn to a greater war with Greece itself. In 480 BC the Persian empire - huge even by today's standards - invaded mainland Greece by land and sea, hoping for a quick and decisive victory. Unfortunately for the Persians, tiny little Greece, led by Athens, routed them. This is the war which gave rise to the well-known battles of Marathon, Thermopylai, and Salamis.

During the years 479 to 431 BC Athens, taking advantage of the kudos gained by leading the Greeks to victory, established an empire of its own throughout the eastern Mediterranean region. This in turn led to a sufficient degree of security (both economic and military) to allow for the time and opportunity for intellectual pursuits. Relative freedom of travel throughout most of the Greek world encouraged the spread of the new radical ideas and philosophies which had come from Ionia, and itinerant teaching arose as a profession.

At first, these teachers applied the newly-discovered techniques of rational inquiry to legitimate questions, such as: What is the nature of the universe? What are the elements? Do atoms exist? and so on, but it was not long before other, trickier, questions arose. Do the Olympian gods exist as related by Homer and tradition? What does

it mean to act morally? In the absence of any physical evidence, debates concerning theology or morality could only be resolved by recourse to pure argument. This soon led to strife. Conservatives and traditionalists were outraged to hear smart young intellectuals arguing away the existence of Zeus by noting that the common belief that he looks human is a purely arbitrary and egotistical association, and that if donkeys had a god, it must, by the same traditional reasoning, look like a donkey. Anaximander claimed (and Socrates was accused of following him in this) that the sun was not the god Apollo, but really just a very hot rock.

Soon, those with a nose for power observed that these new argumentative techniques had great potential. An intellectual basis for an attack on traditional values (or one's opponents' beliefs) can be very useful. In accordance with market forces, then, a particular class of teachers - the Sophists - arose which was exclusively concerned with imparting, for a fee, the skill to argue any proposition. Advocates and politicians equipped with such skills soon turned the Greek world upside down.

Philosophical

Concurrent to these developments the practitioners of pure philosophy continued to attempt to unravel the mysteries of the Universe. But one philosopher in particular - Zeno - by denying the existence of an objective reality, further fuelled the fires being so vigorously stoked by the sophists and their political clients. Zeno developed a set of paradoxes which he maintained proved that objective reality is an illusion. He noted that if, say, an arrow was flying towards its target, then one could locate a halfway point in the trajectory. And given the remaining distance, that too had a halfway point, and so on, so that no matter how close the arrow got to the target, there would always be some distance, however infinitesimal, left to traverse, so the arrow cannot reach the target, so the sensory conclusion that it does (we see it hit) must be an illusion. He also argued that a tortoise could always beat a man in a foot race, if given a head-start. By the time the man has reached the point from which that we see the man pass the tortoise must be an illusion. This may sound naive, but you should remember it was not until the invention of the differential calculus by Leibnitz/Newton that the fallacy in this line of reasoning could be pinpointed. I have no doubt Zeno would have been quite pleased if someone could have identified the flaw in his reasoning for him, but since no-one could do so, and as an intellectually honest man, he had no alternative but to dismiss motion as an impossibility.

The use of language to generate philosophical doubt regarding appearance/reality paralleled the use of language to generate doubt regarding right and wrong. In particular, the sophists manipulated language to make the worse appear the better cause - that is, to take a proposition everyone regards as bad (eg Helen of Troy was a good and virtuous woman, it is morally right to oppress one's enemies, justice and power are the same thing, conquest of the weaker by the stronger is a moral imperative) and, by the use of language alone, to convince all that in fact these are the best and truest outcomes.

How can sophistic arguments be categorised?

So, what are these techniques the power-hungry and the greedy were so keen to pay good money to learn? They

can be summarised under six headings.

1. Redefinition of the terms or words used
2. Argument by analogy or metaphor
3. Appeal to Higher Authority
4. Use of rhetoric (self-evident, or sounds good but not provable)
5. *Ad hominem* (Latin for 'attack the man', not the argument. Essentially a technique designed to distract attention from one's shoddy logic.)
6. WigWam argument (use of anecdotal or incidental evidence - build the argument like the poles of a wigwam - enough single poles, and the proposition (tent) will stand)

Of course, the ancient sophists did not give them these names, but a careful study of sophistic texts reveals these same techniques being used again and again. Often, the implementation of a particular technique is very subtle. If you find one sophistic technique in an argument, then look for more. They will probably be there somewhere.

Some Examples of Ancient Sophistry in Action

One of the most famous of the ancient sophists was Gorgias. Gorgias had a set piece on the virtue of Helen, which he used to demonstrate the power of his methods. Helen, you may recall, was a Spartan queen who ran off to Troy with Paris. The Greeks followed, and after the ten years of the Trojan war, sacked the city and retrieved Helen. Helen thus acquired a position in Greek mythology as the archetypal adulteress, and her name was used as a byword. What can Gorgias do with such intractable material? How can language alone redeem Helen? Gorgias argues as follows. Each argument is categorised according to one of the above six techniques.

1. As a daughter of Zeus, it was not her fault she was so beautiful, and hence the subject of Paris' amorous advances. (This is rhetoric. Helen's beauty cannot be determined one way or the other. Further, an opponent to the argument can only respond by asserting, heretically, that Zeus is capable of having an ugly daughter).
2. Could a daughter of Zeus be so terrible? (Rhetoric again, with similar attendant threat of heresy.)
3. Zeus himself is subject to the power of love. He frequently betrays his own wife, Hera, and is an abject slave of Aphrodite. (Appeal to higher authority. If Zeus can't control his passions, it is hubristic of us to attempt to do so.)
4. If Helen was abducted or raped, then clearly the whole sorry episode was not her fault. (Rhetoric - no-one will ever know what really happened.)
5. But If persuaded, it is still not her fault because language is a drug. Witness the power of poetry or song to move people to tears, or lull them to sleep, or of spells and incantations to influence events. (This is Redefinition of terms. Language is not words and sentences, as you may have naively thought. Language is actually a pharmaceutical.)

Some of the most compelling examples of ancient sophistry are recorded by Thucydides in his History of the Peloponnesian War, an account of the war between Athens and Sparta from 431 BC to 404 BC. War is a fertile breeding ground for the most specious forms of sophistry. Imperialism, nationalism and demagoguery often go hand-in-hand with sophistry.

Thucydides dramatised a dialogue between some Athenians and the Melians (Melos is a small island in the Aegean sea). Melos was trying to extricate itself from the Athenian empire. Athens was threatening complete destruction if Melos seceded. The Athenians, in short, argue that: justice is power (redefinition), right and wrong are the same thing (redefinition), and that it is the law of nature for the strong to prevail over the weak (appeal to higher authority - the law of nature - and argument by analogy - as the strongest lion rules, so should the strongest city). The Athenians make the following points:

1. "...the standard of justice depends on the equality of power to compel and that in fact the strong do what they have the power to do and the weak accept what they have to accept." (sec 89) (Read it again - they are saying that justice and power are the same thing.)
2. The Athenians see this as a win-win situation. "You, by giving in, would save yourselves from disaster; we, by not destroying you, would be able to profit from you." (sec 93). (The Athenians here use rhetoric - the proposition is self-evident - to make the worse appear the better cause - namely that it is good, not bad, for the Melians to be incorporated into the empire.)
3. "...if we were on friendly terms with you, our subjects would regard that as a sign of weakness in us, whereas your hatred is evidence of our power." (sec 95) (Rhetoric - may or may not be the case).
4. "So far as right and wrong are concerned, they [the Athenian subjects] think that there is no difference between the two..." (sec 96). (Redefinition of terms - right and wrong the same thing.)
5. "Our opinion of the gods and our knowledge of men lead us to conclude that it is a general and necessary law of nature to rule whatever one can." (sec 105). (This is the argument by analogy doubling as an appeal to higher authority. The strongest god, Zeus, rules Olympus, the strongest city rules Greece).
6. The Spartans ... believe that what they like doing is honourable, and what suits their interests is just." (sec 105). (Note the redefinition of language again, with a little admixture of *Ad Hominem* - the Spartans are just as bad as us).

The Melians claim the high moral ground (they always talk in terms of honour, fair play, justice etc) but it did them no good. The Athenians razed the place, killed all the men, sold the women and children as slaves, and then annexed the entire island.

Aristophanes was a writer of comedies. One of his plays deals with Socrates, whom the populace considered to be the most notorious sophist in Athens. We, with our sharper understanding due to the portrait of Socrates given in the Platonic dialogues, would not agree that he was a sophist in the same sense as Gorgias, but this made no difference to the Athenians. Socrates was always talking about justice, just like the other sophists, and held blasphemous beliefs about the gods, so he must be a sophist. (This, incidentally, is a good example of a wigwam argument.) Aristophanes, with his finger ever on the popular pulse, savagely lampooned Socrates in his play, the Clouds. In this play, Socrates instructs a young man of Athens in the techniques of sophistry, so that the young man's father can extricate himself from a tricky legal situation. In the course of the action, the following propositions and arguments are made:

It is Right to have sex with your neighbour's wife

1. Zeus was a slave to passion (higher authority, as per Gorgias above).
2. It is Hubris to have more self-control than Zeus (higher authority/religious beliefs again).
3. If caught in the act, and subjected to the carrot and ashes treatment, then there is no shame in that because everyone else is a homosexual anyway. (Redefinition by negation - humiliating punishment must therefore be honourable. Being like everyone else cannot be shameful, so shame is the same thing as being different.)

It is Right for sons to beat up fathers

1. You (the father) did it for my good, I (the son) do it for your good (Rhetoric).
2. Old age is universally regarded as a second childhood (Redefinition of terms).
3. Chickens do it (Argument by analogy/appeal to the law of nature).

There are innumerable other examples of sophistry in action in ancient texts. See the bibliography for a short list.

What were the consequences of all this for the Eastern Mediterranean? A ruthless empire, convinced of its legitimacy, controlled by a ruthless democracy, in turn controlled by ruthless demagogues who used sophistry to manipulate and bend the political assembly to their own ends. In practice, these ends involved the continuation of the war with Sparta, since they were making a lot of money out of it.

So this matter is not just an abstraction. It has crucial consequences for everyday life. The Nazis, Stalin, Pol Pot and every other tin-pot dictator of the twentieth century has used any and all of these techniques liberally in the acquisition and exercise of power. Himmler and Goebbels made propaganda films which explicitly justified the extermination of the mentally ill, homosexuals, or physically defective by the appeal to the law of nature/argument by analogy. "Don't farmers use breeding to get the best stock? Why are people any different?" But these are extreme examples. More insinuating are the everyday examples - the ones which just slip over you during a news broadcast, or are buried in a newspaper article. Identifying these requires both a knowledge of the techniques being used, and some practice in grasping the general point being made by the person deploying the argument.

Sophistry in Action Today

George Negus' program *Foreign Correspondent* had a special on Burma a while ago. Miriam Marshal Segal, who runs a trading house in Rangoon, was being interviewed. The proposition was that given Burma's human rights record and the current state of oppression under SLORC (State Law and Order Restitution Committee), not to mention the then ongoing house arrest of Aung San (who had the misfortune to win the last election) that the West should not have dealings with the current regime. To this Ms Marshal responded:

1. Human rights is me providing jobs (Redefinition of terms).
2. I haven't seen any brutality myself (Wigwam - one person's experience is not conclusive).
3. I'm not pro-regime, I'm pro person-on-the-street (Rhetoric).

4. It's all Aung San's fault (*Ad hominem*).

The interviewer then challenged some Western tourists on the same proposition. The best (worst) response was:

1. There are problems everywhere (*Ad hominem* - the behaviour of other countries does not justify the behaviour of this country).
2. Contact with the outside world is good for human rights (*Rhetorical* - but the experience of South Africa would suggest that international isolation does work wonders if sustained and consistent).
3. The regime has promised to improve (*Higher Authority* - the government says so).

Bob Hawke has some business interests in Burma too. His justification is that there are plenty of other countries with a worse record. This is *ad hominem* again. One may respond by asking also, which countries in particular? Cambodia under Pol Pot? Poland under Hitler? Uganda under Idi Amin? Iraq under Saddam Hussein?

Recently Ian McLaughlin was caught out opening mail directed to the minister for Aboriginal Affairs, Robert Tickner. His argument for the proposition that it is right to open other people's mail? You (ie the Labor Party) would have done the same thing in the same circumstances. A truly brazen example of *ad hominem*.

Ronald Reagan, on being asked why Cutting Welfare would be Good for America, answered that "a rising tide lifts all boats". (*Argument by analogy* - I am not aware of any physical connection between money and ocean tides). Our version of this one was the 'trickle-down effect'. In both cases, the relative gap between rich and poor increased.

Here is another one from George Negus' program on the proposition Whaling is OK. The interviewee was a Japanese government official, and he knew every trick in the book. His arguments were comprehensive, but each one had that fatal sophistic smell:

1. Westerners kill cows and pigs for human consumption. Whales are no different (*Ad hominem*).
2. Complaints about the way we kill them (slowly and cruelly) are irrelevant. Dead is dead (*Rhetoric*).
3. We only kill whales for scientific research, but having killed them, it is just silly to waste the carcass, so we on-sell to the Japanese food industry after taking the samples and collecting data. (*Redefinition of terms* - scientific research. = commercial enterprise.)
4. To completely ban whaling would be unfair to Japanese workers whose jobs depend on processing whale by-products. (*Redefinition of terms*. It may well be unfortunate to lose one's job, but it is not unfair. Unfair implies that some right has been violated.)
5. It's just a fish, so why all the fuss? (*Rhetoric*).
6. Eating whale meat is an ancient Japanese tradition. Westerners simply don't understand how important it is to us. (*Ad hominem* - Westerners are not culturally sympathetic to a society with deep traditions.)
7. Australia, and other western countries now opposed to whaling, were all once whaling nations. But now, having been converted to the anti-whaling position, these countries display the fanaticism of converts, by going too far in the opposite direction. (*Ad hominem* - used to be as bad or worse than us.)
8. Whaling gives objective scientific facts about the state of the various whale species - information which is needed if we are to understand and preserve the species. (But we are talking about killing, not

preserving. This is a bold one. Destroy is redefined as preserve.)

9. Japanese whalers work within the International Whaling Commission guidelines. No laws or treaties are broken. (*Appeal to higher authority*.)

10. Opposition to whaling is just emotional anyway (*Rhetoric*).

This example about whaling is a good indicator of how, by identifying the application of sophistic techniques, we can become empowered to make judgements regarding who is most likely to be correct in a given dispute. Although I have no grasp of the scientific and technical details of the debate, I can nonetheless observe that one party is using sophistry, and the other is not. This strongly inclines me to the anti-whaling position.

Things can get tricky though

The BBC program *Yes Minister*, in the spirit of Aristophanes, provides endless examples of sophistry in action. The master practitioner of sophistry is of course Sir Humphrey, whom, we note, has a first class degree from Cambridge, majoring in Classical Greek. He, then, was taught by the best. Try this one from Sir Humphrey:-

Smoking is good for the State

1. Smoking raises tax revenue
2. Smokers die young, saving us the cost of pensions, and old age care
3. Smokers have Civil rights
4. Smoking provides employment, and industry/retailer profits

Unfortunately, none of our six categories help here. One may suspect that Sir Humphrey has omitted some salient facts, but each of his points are indisputably correct. I still have the strong suspicion that Sir Humphrey is trying to pull the wool over our eyes. The argument smells, but how can it be shown to be formally deficient, without getting entangled in a morass of technical details?

We need a few more techniques to help identify smelly arguments. These additional techniques do not look at the individual points of an argument, but rather at the argument as a whole, or at the context in which the argument is being put.

Can another absurd or widely divergent proposition be sustained by the same argument?

Sir Humphrey's argument could equally justify heroin trafficking or arms dealing. Even heroin traffickers have to pay some tax, even if it is only sales tax on the luxury items purchased with their ill-gotten gains. Heroin users certainly have a propensity to die young. Cogent arguments can be made from the civil rights point-of-view, and undoubtedly many people are employed manufacturing and distributing the stuff. The same could be said at each point for arms dealing. In fact, these would be bad arguments for legalising heroin or for indulging in arms dealing, and a person advocating either position would surely use more apposite approaches (legalisation would be better addressed from the prevention of crime angle, and arms dealing may well be necessary in terms of geopolitical realities, but these are different issues). Even so, the fact that the same argument can be used to support widely divergent positions indicates that the argument is either incomplete (what about the offsets to taxation revenue?)

Can we identify a Pretext / Vested Interest

If, in addition to any of the above techniques, a pretext or vested interest can be identified, then a smelly argument

is highly likely. Is there an identifiable private agenda not reflected in the public justification or pretext? Sir Humphrey, it later transpires, was once on the board of British Tobacco. Whaling nations make no mention of the desire to seek economic and political advantage over their rivals. Politicians rarely tell us that their grand plans for social restructuring are really just instruments to serve in the quest for power, and for the most part are slanted to benefit themselves and/or the interests they represent.

What came first - the proposition or the argument?

You should always ask yourself, when confronted with a proposition, if it is a legitimate hypothesis with various arguments attended as evidence (and expect, if the arguments are defective, that the hypothesis will be graciously withdrawn or modified) or a dogma which remains unchanging, regardless of the failure of any one argument to support it. In this case, the arguments may change, but the proposition must always stand. This is most characteristic of fundamentalist beliefs. Creationists and fundamentalist Christians, astrologers, water diviners and Holocaust revisionists, to name but a few, all show this same propensity for getting it the wrong way around. They would have the tail wagging the dog. It is the arguments which should determine the conclusion, not the conclusion the arguments.

The Historical Paradox behind Modern Scepticism

Scepticism, believe it or not, was invented by the sophists. Thus, both modern sceptics and their opponents share the same intellectual tradition. This came about because since an apparently good argument could be made for any proposition, nothing could be believed. This sense of doubt in the face of everything was augmented by Zeno's work on the unreliability of perception. Thus, we got, from about 450 to 350 BC, an extreme form of scepticism. Gorgias maintained that nothing exists; that if it exists it is unknowable; and even granting that a thing exists and is knowable by one person, the knowledge could not be communicated to others.

This extreme form of scepticism soon led to Cynicism. The Cynics did not believe in anything other than one's natural existence. The most famous Cynic (from the Greek for 'dog', so the Cynics were the Dog Philosophers) was Diogenes. Diogenes wore only a barrel (actually, a modified jar) and was notorious for masturbating on the spot, if ever troubled by untimely sexual desires. Just like a dog, really. Our modern sense of the word 'cynic' is derived from this. A cynic is a person who always suspects an 'animal' motivation for human behaviour - the sort of person who would claim that people don't get married because they love each other, but because they want regular free sex, or that young men go to war not to defend their countries, but to experience the thrill of rape, pillage and plunder.

But the lifestyle of the Cynics did not have wide appeal, and the extreme sceptical position was a little too austere for most people. Scepticism thus evolved into a popular form more suitable to the tenor of the times. From about 350-200 BC scepticism was modified into a doctrine of convenience, since it meant the stupid know as much as the wise - that is, nothing. Scepticism, like sophistry, was also handy for the justification of immoral actions. If

caught out in an act of particular skull-duggery, one could always respond along the lines of "Some say to be strong and ruthless is best overall, and others say we should follow the rule of law. They can't both be right, so the only arbiter I have for my own behaviour is what is best for me." The sophist is partisan, and takes a position and argues for it. The sceptic takes this one step further by allowing all arguments. And if the conclusions are mutually contradictory, then they can all be ignored with impunity.

By about 150 BC this negative scepticism had given way to the more constructive doctrine of degrees of certainty. It is not impossible for water divining to be true, but is very unlikely. Clitomachus, head of the Academy (the one Plato founded at Athens, and the first western University) attacked divination, magic, and astrology not on the basis that they are manifestly absurd beliefs, but as highly unlikely, given our knowledge of how the rest of the world operates. Clitomachus could thus be regarded as the founder of modern scepticism. It is not absurd that telepathy might exist, somewhere, in someone, but since I do not have this ability, and nor does anybody else I have ever known, then, in the absence of any other evidence, I take it that telepathy is not a skill possessed by the human species. True, I can't prove that it doesn't exist, but the same could be said of flying pigs, polka-dotted elephants, dragons and rock-eating giants. The fact that I can't prove they don't exist in no way compels me to believe it.

After the fall of the western Roman Empire scepticism fell into abeyance throughout the medieval Christian period, and was not really needed during the renaissance. Its revival now is surely due to the outbreak of fundamentalism and new-ageism which has hit the western world since the 1960s. Modern sceptics operate in a world as beset by irrational beliefs as that of the world of Clitomachus in 150 BC. A sceptic's work, it would seem, is never done.

Bibliography/reading list

1. For a good and highly accessible introduction to Greek philosophy, see Bertrand Russell, *The History of Western Philosophy*
2. The best exposition of the 'might is right' argument is put by Calicles in Plato's dialogue, *Gorgias*, which is readily available in the Penguin edition.
3. Thucydides, *History of the Peloponnesian War* (Penguin, trans, Rex Warner) contains many examples of sophistic argument. In addition to the Melian dialogue, you may also like to look at the debate between Cleon and Diodotus regarding Mytilene, and the debate between Nicias and Alcibiades on the Sicilian expedition.
4. Our knowledge of Zeno's paradoxes comes from Aristotle, *Physics*.
5. Gorgias' speech in defence of Helen is only available in technical documents, which are not recommended for general readership. If you are interested, and have a knack for academic German, consult the references given in the article on Gorgias in the *Oxford Classical Dictionary*.
6. On sophists in general, see J Burnett, *Greek Philosophy: Thales to Plato* (1914), W Jaeger, *Paideia* (1939-45), E R Dodds, *The Greeks and the Irrational* (1951), especially ch. 6 and G W Bowersock, *Greek Sophists in the Roman Empire* (1969).
7. Most of the plays of both Euripides and Aristophanes have the major characters use sophistry in their set speeches. For example, in Euripides' *Medea* (Medea kills her children in order to be avenged on her husband) we find, interestingly, that it is Medea's husband who uses sophistry to justify his actions, where one might have expected such argumentative ploys from Medea. ■

H L Mencken

A Phenomenal Skeptic

Colin Keay

The first time I encountered *Minority Report*, the Notebooks of H L Mencken, I felt like Cortez discovering the Pacific Ocean: whole new vistas of entertaining scepticism lay before my eyes. Like most readers I had often been amused by Mencken's pithy epigrams, which usually delivered a penetrating observation with barbed wit. Some examples:

"Archbishop: a Christian ecclesiastic of a rank superior to that attained by Christ."

"We must respect the other fellow's religion, but only in the sense that we respect his theory that his wife is beautiful and his children smart." (1).

"The chief contribution of Protestantism to human thought is its massive proof that God is a bore." (309).

"The average clergyman is a kind of intellectual eunuch."

"Love is the delusion that one woman differs from another."

"Adultery is the application of democracy to love."

"A man is inseparable from his congenital vanities and stupidities, as a dog is inseparable from its fleas."

And here is one last Menckenism which is not at all humorous but every bit as true these days as it was when he wrote it, which was just prior to the infamous Scopes Monkey Trial in 1925:

"As skeptics endeavour to pursue the truth, most of the general public does not care."

The above epigrams are tame, however, when compared to Mencken's lengthier writings which appeared for decades in Baltimore newspapers. One of these, and I have not managed to obtain a verbatim copy, was Mencken's thoughts on the Monkey Trial. I found it on the Internet, complete with spelling and other conceivable errors which is why I am loathe to reproduce it in full here. However I cannot resist quoting a few paragraphs, hopefully as accurate as the original text in the *Baltimore Evening Sun* on June 29, 1925, two weeks before the trial began:

"Such obscenities as the forthcoming trial of the Tennessee evolutionist, if they serve no other purpose, at least call attention dramatically to the fact that enlightenment, among mankind, is very narrowly dispersed. It is common to assume that human progress affects everyone - that even the dullest man, in these bright days, knows more than any man of, say, the Eighteenth Century, and is far more civilized. This assumption is quite erroneous. The men of the educated minority, no doubt, know more than their predecessors, and some of them, perhaps, it may be said that they are more civilized - though I should not like to be put to giving names - but the great masses of men, even in this inspired republic, are precisely where the mob was at the dawn of history. They are ignorant, they are dishonest, they are cowardly, they are ignoble. They

know little of anything that is worth knowing, and there is not the slightest desire among them to increase their knowledge.

"Such immortal vermin, true enough, get their share of the fruits of human progress, and so they may be said, in a way, to have their part in it. The most ignorant man, when he is ill, may enjoy whatever boons and usufructs modern medicine may offer - that is, provided he is not too poor to chose his own doctor. He is free, if he wants to, to take a bath. The literature of the world is at his disposal in public libraries. He may look at works of art. He may hear good music. He has at hand a thousand devices for making life less wearisome and more tolerable: the telephone, railroads, bichloride tablets, newspapers, sewers, correspondence schools, delicatessen. But he had no more to do with bringing these things into the world than the horned cattle of the fields, and he does no more to increase them today than the birds of the air.

"On the contrary, he is generally against them, and sometimes with immense violence. Every step in human progress, from the first feeble stirrings in the abyss of time, has been opposed by the great majority of men. Every valuable thing that has been added to the store of man's possessions has been derided by them when it was new, and destroyed by them when they had the power. They have fought every new truth ever heard of, and they have killed every truth-seeker who got into their hands.

"The so-called religious organizations which now lead the war against the teaching of evolution are nothing more, at bottom, than conspiracies of the inferior man against his betters."

After a couple more paragraphs lambasting ignorant religious mobs and their imbecilic leaders, Mencken goes on:

"The inferior man's reasons for hating knowledge are not hard to discern. He hates it because it is complex - because it puts an unbearable burden upon his meager capacity for taking in ideas. Thus his search is for shortcuts. Their aim is to make the unintelligible simple, and even obvious.... No man who has not had a long and arduous education can understand even the most elementary concepts of modern pathology. But even a hand at the plow can grasp the theory of chiropractic in two lessons. Hence the vast popularity of chiropractic among the submerged - and of osteopathy, Christian Science and other such quackeries with it. They are idiotic, but they are simple - and every man prefers what he can understand to what puzzles and dismays him.

"The popularity of Fundamentalism among the inferior orders of men is explicable in exactly the same way.

The cosmogonies that educated men toy with are all inordinately complex. To comprehend their veriest outlines requires an immense stock of knowledge, and a habit of thought. It would be as vain to try to teach it to peasants or to the city proletariat as it would be to try to teach them about streptococci. But the cosmogony of Genesis is so simple that even a yokel can grasp it. It is set forth in a few phrases. It offers, to an ignorant man, the irresistible reasonableness of the nonsensical. So he accepts it with loud hosannas, and has one more excuse for hating his betters."

Have matters improved in the last seventy years? Fundamentalists of all stripes are still with us. If Mencken wrote and published the above sentiments today, he would be caught in the net of antidiscrimination legislation and goodness knows what other politically correct enactments which lurk like bear-traps amid the dark jungles of the law to snare and disable him. Our present-day legalities, right here in Australia, could probably silence a new Mencken were he to emerge, whereas the clergy in the first half of the century were powerless to gag the Mencken of yesteryear. To the point, Mencken's use of the phrase "inferior man" would not be acceptable these days. It is therefore worth quoting his definition: "By an inferior man I mean one who knows nothing that is not known to every adult, who can do nothing that could not be learned by anyone in a few weeks, and who meanly admires mean things." (287). Seven decades later, there are still a lot of them around.

Mencken was a great believer in the efficacy of common sense. He saw it as the antidote to presumption, effrontery and dogmatism and wrote "On some bright tomorrow, so I hope and pray, someone will write a history of common sense. The gradual development of the prevailing metaphysical, political, theological and economic delusions has been recorded in a vast series of books, but no one has ever thought to record the evolution of the sort of wisdom that really keeps human society a going concern. I'd certainly like to know, if it can be found out, who was the first man to doubt the magic of priests, and likewise who was the first to note the vanity of all so-called philosophical speculation. These fellows were enormous benefactors of mankind, and they are as completely forgotten as the lost inventors of the plow, the boat and the wheel. They were the real begetters of everything properly describable as sound information and rational thinking. Their ribald hoots were worth the soaring fancies of all the sages, and ten thousand times as much. Every time anyone says anything worth hearing today it goes back to them, and every time a new fallacy is launched it is in contempt of them." (183).

Fatuous philosophy earned many slings and arrows from Mencken.

The only department of so-called philosophy that shows any general utility is epistemology - the study of the nature of knowledge and the means of attaining it. All the rest is mere logic chopping, and as lacking in genuine significance as a series of college yells. It would no doubt surprise the average man, even the average intelligent man, to learn that he harbours an epistemology, but such is the fact. In all men save those poisoned by metaphysical toxins it is the epistemology of common sense - a product not of professional philosophers, but of a line of enlightened practical men

stretching back to the beginnings of the race. The chief aim of all professional philosophers, now as in the past, is to break down this admirable epistemology and substitute something more mystical. They are failing as their predecessors failed - even as another Plato would fail if he came into the world today. Science in all its ramifications has no truck with them. They are intellectual acrobats, and of no more value to humanity than those in the circus. Indeed, they are of less value, for the circus brethren are at least amusing." (285).

Mencken defined common sense harmoniously with the avowed aims of the formalised skeptic movement half a century later.

"All professional philosophers tend to assume that common sense means the mental habit of the common man. Nothing could be further from the mark. The common man is chiefly to be distinguished by his lack of common sense: he believes things on evidence that is too scanty, or that distorts the plain facts, or that is full of non-sequiturs. Common sense really involves making full use of all the demonstrable evidence - and of nothing but the demonstrable evidence." (44).

In another commentary, Mencken expounds on the role of evidence.

"The believing mind is equally impervious to evidence. The most that can be accomplished with it is to substitute one delusion for another. It rejects all overt evidence as wicked. Thus Americans in general go on whooping up democracy, though every even half-intelligent American, put on the stand, will admit freely that it is full of holes. In the same way Christianity survives, though very few Christians believe in it at all, and only a small company of admittedly psychopaths believe in it altogether. Put into the form of an affidavit, what the latter profess to regard as true would make even the Pope laugh." (125).

Now we might as well take a closer look at Mencken's assessment of religion, although I'm not so sure his assertion about magic is true, even at this distance in time.

"The time must come inevitably when mankind shall surmount the imbecility of religion, as it has surmounted the imbecility of religion's ally, magic. It is impossible to imagine this world being really civilized so long as so much nonsense survives. In even its highest forms religion runs counter to all common sense. It can be defended only by making assumptions and adopting rules of logic that are never heard of in any other field of human thinking." (300).

This, of course, encapsulates the conflict between science and religion. Another of Mencken's expositions expands on this:

"... such a thing as a truly enlightened Christian is hard to imagine. Either he is enlightened or he is Christian, and the louder he protests that he is the former the more apparent it becomes that he is really the latter. A Catholic priest who devotes himself to seismology or some other such safe science may become a competent technician and hence a useful man, but it is ridiculous to call him a scientist so long as he still believes in the virgin birth, the atonement or the transubstantiation. It is, to be sure, possible to imagine any of these dogmas as being true, but only at the cost of heaving all science overboard as rubbish. The priest's reasons for believing in them is not only not scientific; it is violently non-

scientific. Here he is exactly on all fours with a believer in fortune-telling, Christian Science or chiropractic.” (232).

On the other hand, according to Mencken,

“The scientist who yields anything to theology, however slight, is yielding to ignorance and false pretences, and as certainly as if he granted that a horsehair put into a bottle of water will turn into a snake.” (45).

This brings us to a minefield of Christian beliefs where Mencken played the part of a minesweeper of unsurpassed efficiency.

“There is no possibility whatsoever of reconciling science and theology, at least in Christendom. Either Jesus rose from the dead or He didn’t. If He did, then Christianity becomes plausible; if He did not, then it is sheer nonsense. I defy any genuine scientist to say that he believes in the Resurrection, or indeed in any other cardinal dogma of the Christian system. They are all grounded upon statements of fact that are intrinsically incredible. Those so-called scientists who profess to accept them are not scientists at all -

The current revolt against the so-called liberal theology is perfectly sound. That theology is nothing save an excuse and an evasion. It reduces both science and theology to the ridiculous. If a man can’t believe that Jesus rose from the dead he should say so frankly and be done. It is not only foolish but also dishonest for him to pretend to accept all the implications of Christianity without admitting the basic postulate. In this field the Catholic Church, as usual, has been enormously more intelligent than the Protestant. It has rejected so-called Modernism in toto and refuses any compromise with it. The Protestant’s attempts to compromise have simply made Protestantism ludicrous. No man of any intellectual dignity can accept it, or even discuss it seriously. The only really respectable Protestants are the Fundamentalists. Unfortunately, they are also palpable idiots, and so Christianity gains nothing by their adherence - in fact, it is gravely injured by their adherence, just as spiritualism would be made preposterous, even if it were not so intrinsically, by the frowsy old imbeciles who believe in it.” (118).

Mencken was unsurpassed in his ridicule of the Christian concept of God and His declared omnipotence:

“It seems to me to be perfectly imaginable that there may exist orders of intelligence as far superior to that of man as that of man is above the intelligence of a dog; or that of a dog is above that of, say, an earthworm; or that of an earthworm is above that of, say, a bacillus. Here there are plain differences, not only quantitatively, but also qualitatively.

“But mankind almost always insists on picturing God as only a greatly magnified man. He is thus endowed with all the puerile weaknesses of man, and the notion of His omnipotence becomes absurd. This absurdity lies at the heart of Christianity. It is completely inconceivable that a really omnipotent God would have been forced into the childish device of sending his Son to save His own creatures. He could have saved them by simply willing it, and the miracle would have been no greater in any sense than the miracle of impregnating a virgin - which, in fact, may be feasible soon in the

laboratory.

“Having this nonsense at its heart, Christianity is not hospitable to clear thinking, and its whole history has been a history of combats with rational ideas. If it had started off, like some of the other Eastern religions, with a God completely unimaginable and superhuman, it would have been more persuasive to civilized man. As it is, it has lost ground in proportion as man has come to reflect seriously and effectively about the universe. If God be imagined as a creature with an order of intelligence entirely different from and superior to that of man, the whole question as to who created God loses some of its force, for it is entirely conceivable that God’s intelligence may be sufficient for self-creation. In brief, once we admit that there is a kind of intelligence entirely different from that of human beings, we can credit it with any powers that seem necessary and still escape absurdity. But when that intelligence is depicted or thought of as substantially identical to human intelligence, all its miracles become incredible. Even the moral system of a Christian God is dubious. Reduced to its essentials, it is simply the moral system of any somewhat fussy Presbyterian. It is absurd to ask civilized man to revere such a donkey.” (409).

When it comes to absurdity, Mencken analyses the doctrine of the Atonement in no uncertain terms:

“Of all Christian dogmas, perhaps the most absurd is that of the Atonement, for it not only certifies to the impotence of God but also His lack of common sense. If He is actually all-wise and all-powerful then He might have rescued man from sin by devices much simpler and more rational than the sorry one of engaging in fornication with a young peasant girl, and then commissioning the ensuing love-child to save the world. And if He is intelligent, He would have chosen a far more likely scene for the business than an obscure corner of the Roman empire, among people of no influence or importance. Why not Rome itself? Why was Jesus not sent there, instead of being confined to the back alleys of Palestine? His followers, after His execution, must have asked themselves something like this question, for they proceeded at once upon the missionary journeys that He had never undertaken Himself. Their success was only moderate, for they were men of despised castes, and the doctrine they preached was quickly corrupted by borrowings from the various other cults of the time and from their own ignorant speculations. Indeed, the whole machinery of propaganda was managed so clumsily that Christianity prevailed at last by a series of political accidents, none of them having anything to do with its fundamental truth. Even so, the overwhelming majority of human beings remained unaffected by it, and it was more than a thousand years before so many as half of them had heard of it. During all this time, by Christian theory, they remained plunged in the sins Jesus was sent to obliterate, and countless multitudes of them must have gone to Hell. To this day there are many millions still in that outer darkness, including all the Moslem nations, all the great peoples of Asia, and nearly all the savages on earth. Certainly, it would be impossible to imagine a more inept and ineffective scheme for saving humanity. It was badly planned, its execution was left

mainly to extremely stupid men, and it failed to reach all save a minute minority of the men and women it was designed for. I can think of no human reformer, not clearly insane, who has managed his propaganda so badly." (198).

After a broadside like that, one can readily imagine the clerics of Baltimore forbidding their faithful to read the newspapers carrying Mencken's devastating material, which he cheerfully repeated whenever he felt there was a need for it:

"Man's limitations are also visible in his gods. Yahveh seems to have had His hands full with the Devil from the start. His plans for Adam and Eve went to pot, and he failed again with Noah. His worst failure came when He sent His only begotten Son into the world to rescue man from sin. It would be hard to imagine any scheme falling further from success." (389).

And he exposed other aspects of religion which, with the passage of time, have proved correct, as witness the number of priests and pastors found guilty of sex offences over the years.

"No other religious system has such troubles with the sex question as Christianity. It is, indeed, the most unhealthy of religions... Paul was plainly a pathological case, and the same thing may be said of many Christian heroes since." (227).

In another essay, Mencken attacks on a different front:

"Moral certainty is always a sign of cultural inferiority. The more uncivilized the man, the surer he is that he knows precisely what is right and what is wrong. All human progress, even in morals, has been the work of men who have doubted the current moral values, not of men who have whooped them up and tried to enforce them. The truly civilized man is always skeptical and tolerant, in this field as in all others. His culture is based on 'I'm not too sure'." (418).

Mencken gave the pious moralists a further hammering when he wrote:

"In the field of practical morals popular judgements are often sounder than those of self-appointed experts. These experts seldom show any talent for the art and mystery they undertake to profess; on the contrary, nine-tenths of them are obvious quacks. They are responsible for all the idiotic moral reforms and innovations that come and go, affecting decent people. And they are the main, and often the only advocates of moral ideas that have begun to wear out and should be scrapped. The effort to put down birth control, led by Catholic theologians but with a certain amount of support from Protestant colleagues, offers a shining case in point. The more the heat is applied to them, the more Catholic women seem to resort to the devices of the Devil, on sale in every drugstore. Many of these women are genuinely pious, but into their piety there has been introduced an unhappy doubt, perhaps only half formulated. It is a doubt about the professional competence of their moral guides and commanders. They have not only begun to view the curious fiats of bishops and archbishops with a growing indifference; they have also begun to toy with the suspicion that even the Pope, on occasion, may be all wet. His first anathemas against contraception were plain and unqualified, but of late he has begun to hedge prudently, and it is now quite lawful for a Catholic woman to

avoid pregnancy by a resort to mathematics, though she is still forbidden to resort to physics or chemistry. This concession is a significant admission that they were wrong about a capital problem of their trade - and that the persons they (the clergy) sought to teach were right." (62).

Lest the reader should imagine that Mencken confined himself to attacks on Christianity, nothing could be further from the truth. Mencken was a true iconoclast - he attacked any belief system based on error or superstition.

"The one thing common to all prophets is their belief in their own infallibility. Their followers believe it too, and so protestantism is an inevitable phenomenon in all religions. But it never actually produced reforms, or moves the central body of doctrine toward a greater plausibility. The Mohammedan sectaries, in fact, are even more idiotic than the body of orthodox Moslems, and in Christianity Protestantism is five times as imbecile as Catholicism." (337).

Eastern philosophies and religions did not escape Mencken's arrows:

"One of the strangest delusions of the Western mind is to the effect that a philosophy of profound wisdom is on tap in the East... The so-called philosophy of India is even more blowsy and senseless than the metaphysics of the West. It is at war with everything we know of the workings of the human mind, and with every sound idea formulated by mankind. If it prevailed in the modern world we'd still be in the thirteenth century; nay, we'd be back among the Egyptians of the pyramid age. Its only coherent contribution to Western thought has been theosophy - and theosophy is as idiotic as Christian Science. It has absolutely nothing to offer a civilized white man." (48).

Ooops. One cannot say that these days. In a somewhat broader thrust, Mencken failed to foresee the future:

"The so-called philosophy of India has found its natural home in Los Angeles, the capital of American idiots. Nowhere else, so far as I know, is there any body of theosophists left, and nowhere else has there ever been any substantial following for Yogi. All the quacks who advertise to teach Yogi in twenty lessons for \$2, and all the high priests of the other varieties of Indian balderdash have their headquarters in Los Angeles, which is also the Rome of the American Rosicrucians." (334).

One wonders what Mencken would write about the New Age. However let us now follow him from religion to politics.

"The most expensive thing on this earth is to believe in something that is palpably not true. The burden of quackery has never been properly estimated. The early Christians sold their property and abandoned their families in confidence that the end of the world was at hand. There was no evidence for this save the assurance of the quacks who operated upon them. The quacks got enormous power out of the process, and in all probability cabbaged most of their victim's property. The victims themselves acquired nothing save the hope of reward postmortem, which was, of course, hollow and vain. To this day the rewards that political quacks offer are quite as valueless." (193).

Moving closer in analogy to our antipodean experience, particularly of recent time, Mencken wrote:

“Under democracy one party always devotes its chief energies to trying to prove that the other party is unfit to rule - and both commonly succeed, and are right. The Coolidge Prosperity and the Hoover Economy of Plenty were quite as bad as the New Deal. The United States has never developed an aristocracy really disinterested or an intelligentsia really intelligent. Its history is simply a record of vacillations between two gangs of frauds.” (330).

Mencken was every bit as uncharitable toward Marxism:

“The Marxian dialectic is simply a theology. That is to say it is a kind of occult hocus-pocus, one of the chief characters of which is that the common people cannot understand it. Reduced to plain English, it always becomes absurd. In order to make it impressive the Communist theologians have to outfit it with a vocabulary of formidable but meaningless words. They maintain it in an extremely clumsy and buzzfuzzian manner. Reading a treatise on it by one of the great thinkers of the movement is a really dreadful experience. The argument becomes as windy and fantastic as the argument for Christian Science.” (230). “‘But you don’t understand!’ This answer of the Christian Scientist caught on a hook is always made by other merchants of blowsy metaphysical systems; for example, the Thomists. The Communists employ it constantly. Their first and often their only answer to a skeptic is to accuse him of not having read the Marxian gospels. If it turns out that he has, then they allege that he hasn’t understood them. This, of course, may be true enough, for they are certainly hard to grasp; in fact, they consist in large part of very palpable nonsense. Not only are Marx’s premises dubious; his logical processes are frequently worse, and so his conclusions seldom ring true. Metaphysics is almost always an attempt to prove the incredible by an appeal to the unintelligible.” (357).

Mencken sets Communism squarely alongside Christianity:

“Like all other forms of theology, Communism runs aground on the fact that there are frequent bitter rows between different factions of its prophets. Down to 1927 the American Communists believed in Trotsky’s ideas as a cardinal article of faith, almost on a par with the Christian’s belief in the Virgin Birth. But when Trotsky was knocked off he became anathema, and soon his former customers were denying the validity of everything he said, or had said, no matter how plausible. If he had begun arguing that 2 and 2 equalled 4 they’d have disputed it loudly, and denounced anyone who agreed as a scoundrel. Such disagreements tend to wreck all religions, even the simplest and most clearly outlined, for example, Mohammedanism, which has split into various warring sects, and indeed had done so long ago as Omar Khayyam’s time.” (337). “Communism, like any other revealed religion, is largely made up of prophecies. When they fail to come off its clergy say that they will be realized later on. Thus, if we have another boom, they will argue that the collapse of capitalism is only postponed. The fact that the greatest booms ever heard of followed Marx’s formal prophecy of the downfall of capitalism is already forgotten, just as millions have forgotten the early Christian prophecy that the end of the world was at

hand. The first Christians accepted postponements as docilely as the Communists of today - in fact, many of them were still believing and hoping two hundred years after the crucifixion. In all probability, Communism will last quite as long. It is still in its first century, so hope still hops high.” (282).

What a ghastly thought! Communism always trumpeted its imagined high standards of morality, which Mencken cuts to size as usual:

“The worst government is the most moral. One composed of cynics is often very tolerant and humane. But when fanatics are on top there is no limit to oppression.” (327).

Mencken had a view on the reason why nations allow demagogues to gain power:

“People crave certainties in this world, and are hostile to ifs and buts. The chief strength of organized religion lies in the fact that it provides plain and positive assurance for poor souls who find the mysteries of this earthly existence an intolerable headache, and are uneasy about their prospects postmortem. In the political field the same appetite for surety is visible, which explains, of course, the prosperity of demagogues. They are simply persons who promise in loud, ringing voices to solve the insoluble and unscrew the inscrutable. At their worst they are palpable frauds, comparable to so many thimble-riggers at a county fair; at their best they come close to the elegant imbecility of theologians.” (288).

Mencken hurled frequent brickbats at education and its practitioners:

“The public schools of the United States were damaged very seriously when they were taken over by the State. So long as they were privately operated the persons in charge of them retained a certain amount of professional autonomy, and with it went considerable dignity. But now they are all petty jobholders, and show the psychology that goes with the trade. They have invented a bogus science of pedagogy to salve their egos, but it remains hollow to any intelligent eye. What they may teach or not teach is not determined by themselves, or even by any exercise of sound reason, but by the interaction of politics on one side and quack theorists on the other. Even savages have reached a better solution of the education problem. Their boys are taught, not by puerile eunuchs, but by their best men, and the process of education among them really educates. This is certainly not true of ours. Many a boy of really fine mind is ruined in school. Along with a few sound values, many false ones are thrust into his thinking, and he inevitably acquires something of the attitude of mind of the petty bureaucrats told off to teach him. In college he may recover somewhat, for the college teacher is relatively more free than the pedagogue lower down the scale. But even in college education has become corrupted by buncombe, and so the boy on the border line of intelligence is apt to be damaged rather than benefited. Under proper care he might be pushed upward. As it is, he is shoved downward. Certainly everyday observation shows that the average college course produces no visible augmentation in the intellectual equipment and capacity of the student. Not long ago, in fact, an actual demonstration in Pennsylvania demonstrated that

students often regress so much during their four years that the average senior is less intelligent, by all known tests, than the average freshman. Part of this may be due to the fact that many really intelligent boys, as soon as they discover the vanity of the so-called education on tap, quit college in disgust, but in large part, I suspect, it is a product of the deadening effect of pedagogy." (127).

I find it hard to wholly agree with Mencken, but elements of his analysis are certainly applicable in this era in Australia. Nevertheless the final excerpt I have chosen surely has a recognisable relevance here:

"The country high-schools of the United States no longer make any pretense to rational teaching. Now that every yokel above the intellectual level of an earthworm is run through them, their more intelligent teachers give up in despair, for not more than a small percentage of the pupils they face are really educable, at least beyond the fifth-grade level. The average curriculum shows a smaller and smaller admixture of rational instruction, and is made up more and more of simple timekillers. The high-school, in its earlier form of the academy, was a hard and even harsh school, but it actually taught a great deal. But in its modern form it is hardly more than a banal aggregation of social clubs. Every student of any pretensions belongs to a dozen - imitation fraternities, bands and orchestras, athletic teams, and so on.

The most salient pupil, next to the champion athlete, is the female drum-major, proudly showing her legs, making the most of her budding breasts, and even offering the spectators a very good idea of the lines and foliage of her pudenda. The State Universities are commonly required by law to take in, sight unseen, the graduates of these burlesque institutions of learning. As a result, they go downhill rapidly, and many of them are already burlesques themselves. As the student body increases in quantity it declines correspondingly in quality." (340).

Enough is enough. The match of Mencken's trenchant analysis of American institutions half a century ago is uncomfortably close to the trends of today in our country. Perhaps we can rest thankful that the American scene has not in the meantime deteriorated quite as drastically as it might have. This may be due to an awakening to these social problems by thoughtful Americans, and in turn it may conceivably be related to the development of organised scepticism.

Notes:

1. The numbers in brackets after each Mencken extract are those used in "Minority Report: H L Mencken's Notebooks", published in 1956 by Alfred A Knopf, New York.
2. A very readable biography is "Mencken" by Carl Bode, published in 1969 by the Southern Illinois University Press, SBN 8093-0376-0.
3. The Mencken epigrams quoted were mainly from Bode's biography and "A Treasury of Ribaldry" by Louis Untermeyer, who was one of Mencken's oldest friends.
4. Another collection of Menckeniana is "The Vintage Mencken" gathered by Alistair Cooke, published in 1955 by Vintage Books, New York. These are mainly essays carefully chosen to omit the more robust and racy items quoted above.
5. Lastly, mention must be made of Mencken's famous tract "In

Virgin Hoax

Harry Edwards

VIRGIN MARY APPEARANCES A HOAX:
CATHOLIC CHURCH,

*San Fernando, Philippines,
September 6, AFP.*

"The Roman Catholic Church in the Philippines said today that the alleged 1993 appearances of the Virgin Mary to a Filipino choirboy near this northern town were a hoax.

A church committee, headed by Father Samuel Banayat, ruled that the alleged apparitions in the town of Agoo, La Union province were "far from being supernatural."

Judiel Nieva, then a 15 year old church choirboy, claimed in 1993 that the mother of Jesus Christ had been appearing before him.

In March that year, tens of thousands of Filipinos in this largely Roman Catholic nation gathered on a hilltop in Agoo hoping to see the Virgin Mary.

Nieva claimed to have seen the Virgin on that day, whereupon he began chanting and rapidly scribbling notes of her message.

But the committee noted that the Blessed Virgin's supposed messages - to spread love and pray regularly - had been plagiarised from at least five sources, including the apparition at Medugorje, which the church has certified as genuine.

Committee members also said they investigated reports that a statue of Mary had shed tears of blood during the apparitions and found that the statue had canals inside the eyes and a tube in the crown.

They said that Nieva's notes of Mary's messages were full of grammatical errors - the words immaculate and serenity were misspelled - and that his chants were rapid, indicating that he had memorised them.

They likewise slammed Nieva for using contributions from believers to build a chapel on the apparition hill, saying that it was not authorised.

Father Mario Valdez, a member of the committee, admitted that many Filipinos would be disappointed by the findings but hoped that "little by little they will accept" the verdict.

Filipinos are avid believers in apparitions and other miracles. (See also original article on Agoo, "Apparitions, Faith and Cock-a-doodle-doo" *the Skeptic* Vol.13, No. 3, p44-45.) ■

... from previous column

Defence of Women", first published in 1923 and issued in The Traveller's Library, by Jonathan Cape, London in 1927.

At first it appears to be shamefully misogynist, but closer reading reveals a depth of sympathy for the plight of women which is only now being realised in society. One of the epigrams at the beginning of this article comes from "In Defence of Women". Guess which one. ■

The Abuse of Scientific Concepts in "The Celestine Prophecy"

Michael W. Lilliquist

The Celestine Prophecy. An Adventure, James Redfield, Warner Books, 1993.

A curious feature of much New Age thought is an ambivalent attitude towards science. On the one hand, science and the scientific method are derided as being somehow too narrow, too impersonal, too "linear," or too "Western." Science is often described as analytic or rational to a fault, implying that an alternative approach that is less analytic or rational is somehow superior, or at least more profound. On the other hand, many New Age and traditional belief systems are self-described as a kind of science. For example, astrology may be called "an ancient science," or the use of crystals may be described as part of a "healing science." The word "science" is used specifically, I believe, in a not-always-conscious attempt to steal some of the prestige that science has rightfully earned and to have some of the credibility of science "rub off" onto the New Age system. In other cases, New Age ideas are presented as somehow being supported by science or presented as the actual conclusions supported by scientific studies. Common examples include the use of quantum physics to support strange medical or health claims, such as those made by Deepak Chopra, and the use of electroencephalography ("brain waves") to support various relaxation or subconscious learning schemes. In such cases, both the scientific process and scientific findings are thoroughly misunderstood, misused, and sometimes abused beyond recognition.

A representative example of this can be found in the best-selling book by the American author James Redfield, entitled *The Celestine Prophecy. An Adventure*. In this book many of the old standards of New Age thought, such as colour-changing auras and synchronicity make an almost too predictable appearance. Like many similar New Age works, the Prophecy is apparently well-intentioned, in as much as it is clearly aimed at people who are psychologically vulnerable, if not outright wounded by life. It is a book for people desperately in need of "warm fuzzies" and with a clear need to believe in something — anything — with a hopeful message.

More interestingly for our purposes here, science and scientific concepts play a crucial role, particularly in the third chapter of the book, in Redfield's attempt to build a credible explanation for the hopeful message he offers. In these passages of his book, Redfield manages simultaneously to pay homage to science and to characterize science as hopelessly limited. He manages simultaneously to use its credibility and the credibility of scientists to validate his own ideas, and also to misrepresent scientific ideas and to distort scientific findings.

Unfortunately, since most ordinary citizens are not themselves scientifically literate, particularly so for most New Age partisans, these egregious errors are likely to go largely unnoticed by his readership. Indeed, much of the success that this book achieves is predicated upon such scientific naivete. Moreover, many of the ideas upon which Redfield draws have their roots in arcane disciplines such as cosmology or particle physics. Even a well-educated sceptic may find himself at a loss when confronted with such unfamiliar ideas. Although I can hardly credit myself with any expertise in these areas, it is my goal nonetheless to indicate the scientific concepts used in the Prophecy and to point out the way in which these concepts have been twisted and, ultimately, abused.

A little background is in order for those of you who have not read — or who do not plan to read — *The Celestine Prophecy*. This "inspirational" book is in the form of an adventure novel in which the protagonist goes on a journey to uncover the contents of a 1000-year-old mystical document which was uncovered in the Peruvian Andes and which is being suppressed by fearful local government and church officials. Along the way, in nine chapters, the unnamed hero learns the Nine Insights contained in the so-called Celestine Prophecy. Among other things, these Nine Insights tell us: that we are innerly restless because we are searching for "something"; that this something is in part revealed through "meaningful coincidences" in our lives and through unexplained feelings of "mystery;" that the last millennium and more of history has been building inevitably towards a fruition of something important through human beings' experiences; that there is a newly discovered form of energy behind all things in the universe, including the meaningful coincidences and the course of history; that people feel good or bad depending on their energy level, and so people may compete for it psychologically; that the energy is also available from the rest of the universe and is experienced as feelings of love and universal connectedness; that our personal histories and psychopathologies can cause us to fight over this energy and ruin our relationships in the struggle; that it is possible to share energy with others and thus strengthen each other; and finally, that awareness of this energy, and our connectedness, will become more and more common and eventually reach every person on the globe, ushering in a new millennium of enlightenment and global peace. Whew!

So, in just what ways are scientific ideas abused? Only a few pages into the book we meet our first abused idea. In this case, "pure chance" is misunderstood as absolute randomness without physical cause, so that any apparent coincidence is construed as evidence of mysterious

guidance by “some unexplained force” (p 7). These coincidences are, therefore, meaningful episodes of “synchronicity” rather than simple coincidences. But coincidences are just that: coincidences, perhaps unlikely but possible nonetheless. Chance and randomness are perhaps best defined probabilistically. For example, a coin toss is said to be an event of pure chance, since the results can only be predicted based on a 50-50 probability of heads or tails. But randomness does not imply, as Redfield suggests, that an event is without cause. The coin is subject to innumerable influences, such as its shape (flat & two-sided), its rotational inertia, and gravity, which cause the coin to behave as it does. Put simply, even chance events can have identifiable causes. Redfield doesn’t acknowledge this. In fact, Redfield erroneously states that “[t]he old Newtonian idea was that everything happens by chance” (p 59). This is a particularly odd statement, since the near opposite is closer to the truth.

The old (not necessarily Newtonian) view is more accurately described as deterministic, with a clockwork universe. According to this “old” view, things may indeed be random, but that does not mean that they are without cause. But, by introducing this “straw man” of causeless randomness, Redfield lays the groundwork for a misunderstanding of coincidences as somehow meaningful in a way that is “beyond current understanding.” Chance and randomness are subtle ideas, and perhaps it is not surprising that Redfield may not really understand them. Regardless, the erroneous twist that he puts upon the idea of “chance” serves as the basis for the New Age belief in synchronicity.

On the very next page, the idea of critical mass, derived from nuclear physics, is taken as a literal model for human psychological processes. “[O]nce we reach this critical mass [certain number of people], the entire culture will begin to take these coincidental experiences seriously” (p 8). As a metaphor, the idea of critical mass may be quite useful, but it cannot be used to imply that actual mechanisms exist. In this instance, however, Redfield is suggesting that an actual mechanisms exists whereby other people’s beliefs can actually change a person’s mind. The physical mechanisms of atomic chain reactions are well documented; telepathy is not.

At the same time, the idea of critical mass is tied to the “hundredth monkey” myth, although it is not identified by that name, that once a certain number of people realize something, then everyone else will spontaneously realize the same thing. Towards the end of the book, this same topic is revisited: “‘Once we reach critical mass,’ he continued, ‘and the insights begin to come in on a global scale, the human race will first experience a period of intense introspection’” (p 224), then all ecological problems will be solved.

In chapter three, entitled “Energy,” the scientific method is both described and misconstrued. On the one hand, the scientific method is accurately described as a “method of consensus building, a way to systematically explore this new world of ours” (p 25) as a way “to somehow separate fact from superstition” by demanding “solid evidence for any new assertion about how the world works... Any idea that couldn’t be proved in some physical way was systematically rejected” (p 41). On the other hand, the scientific method is inaccurately described as a way of

“discovering reality” and is incorrectly described as attempting to discover “the nature of everything around you, including God, and including the true purpose of mankind’s existence on the planet (p 41). Given this mischaracterization of the goals of science, science is described as a failure for not being able to bring back a “new picture of God” to replace the older ones that it dethroned. Properly understood, science has nothing to do with most God concepts, neither to prove them nor to disprove them. Nonetheless, it is into this false breach that the teachings of the Insights are supposed to step. And from whom does the protagonist of The Celestine Prophecy learn of this “failure” of science to find God? From whose mouth do these “explanations” emerge? From a scientist, a creditable authority, a physics professor no less!

“Energy” is a very popular term in New Age thought. People are said to gain energy, or to feel the energy, or channel their energy, or to let the energy flow better. The “Prophecy” is no different in this regard. Indeed, the nebulous idea of a mystical “energy” is the cornerstone of the book. The new “energy” recounted in the book is described as explicable in terms of “the revolution in physics... [stemming] from two major findings, those of quantum mechanics and those of Albert Einstein” (p 42). But this is not energy in any form that would be recognizable by a physicist familiar with joules, ergs, or watts. Instead, this “energy” is specifically stated to *not* be measurable by the tools of science; indeed, it is described as the ultimate conceptual oxymoron: It somehow affects things without being detectable. Throughout the book, the term “energy” is used and abused. To take a few examples, this energy is “the basis of and radiated outwards from all things, including ourselves” (p 42); perception of this energy “first begins with a heightened sensitivity to beauty” (p 42); is found in organic food and can be acquired through eating (!) (pp 47, 63 & 110); can be seen as auras of different colours and sizes around people and plants (pp 49, 55-56 and); and is identified as equivalent to the Chinese *chi* (p 51). An important aspect of this energy is that people can consciously control “the energy that belongs to us” (p 75) and can both steal and give energy to others (pp 76-77; 88-89). In addition, the energy is described as having gender characteristics “male energy” or “female energy” (p 194). Is this simply an extended metaphor or is it abused science? In many ways it can be viewed sympathetically as the former; but, because Redfield specifically ties his conception of “energy” to “the revolution in physics” and to a new revolution at the edges of science, I contend that it is more accurately described as the latter.

In the same chapter on “energy,” the contributions of several major scientists are misrepresented. For example Einstein’s life work — a supposed cornerstone upon which the book’s ideas are built - is described as showing that “hard matter is mostly empty space with a pattern of energy running through it.” To be accurate, this is an idea more closely associated with physicists such as Ernest Rutherford, Erwin Schroedinger or Niels Bohr. At the same time Einstein’s major life work, dealing with special and general relativity, as well as the nature of light, is never even mentioned. It seems as if Einstein’s name is used only because it is the better name to drop.

A major contribution of Werner Heisenberg is also misunderstood, and once again this misunderstanding lays

the groundwork for a bizarre New Age idea. The Heisenberg Uncertainty Principle, although not mentioned by name, is presented in this way: “Experiments have revealed that when you break apart small aspects of this energy, what we call elementary particles, and try to observe how they operate, the act of observation itself alters the results — *as if these elementary particles are influenced by what the experimenter expects*” (italics added, p 42). As is quite common with scientific ideas in New Age writings, the basic features are correct but the implications are completely off the mark. In this case, the “as if” takes the reader off the deep end. In its original form, Principle simply states that the more precisely you measure the momentum of a particle, the less precisely you can measure its position at the same time, and vice versa. In other words, the two measurements cannot be both simultaneous and precise for the same particle. It’s a simple trade-off. Another interpretation of the Principle is that the act of measurement causes a “collapse” of the probability “wave function” which describes the wave/particle, so that the wave/particle appears to assume one definite state out of many permissible states. In order to determine position, for example, information about direction of motion must be sacrificed in the collapse. The act of measurement produces a limitation on data collection, but it has nothing to do with what the experimenter wants or expects. Indeed, the Principle applies whether or not a conscious experimenter ever looks at the data. The act of measurement, at the quantum level, consists of fundamental particles interacting with each other. In a very real sense, every piece of macroscopic matter is a vast sea of “measuring,” as every particle within it is constantly interacting with adjacent particles and causing their wave functions to collapse. And this has nothing whatsoever to do with what an observer expects or desires.

To put it in another way, Redfield confuses “observation” as physical measurement with “observation” by a conscious person, and by association he confuses this with personal expectation and with conscious desire of the “observer.” Through this misunderstanding of what is meant by “observation” or the “observer,” the universe is construed as “...malleable to human intention in a way that defies our old mechanistic model of the universe — as though human expectation itself causes our energy to flow out into the world and effect other energy systems” (p 59). Redfield writes that these “perplexing experiments in particle physics” show that “little bits of atoms appeared wherever the scientists expected them to be” (p 59). This erroneous conclusion is taken as evidence that the universe “responds subtly to the mental energy we project out onto it” (p 59). Thus, starting from a misunderstanding of a well-established scientific principle, Redfield builds to a clearly false conclusion that we can control the physical world by just thinking about it. From physics to telekinesis!

Unfortunately, physics is not the only scientific discipline that is abused in “Prophecy”. Redfield manages to twist cosmology, chemistry and biology together into singularly odd version of “evolution.” The universe is described as evolving through different stages of ontology termed levels of “vibration.” Elemental hydrogen is said to vibrate at the lowest level, and helium “at the next higher level” (p 99), whatever that means. Through stellar formation of the elements and later combinations of these

elements “matter leaped past the vibratory level of carbon to an even more complex state: to the vibration represented by amino acids” (p 99). Evolution is described teleologically, as if driven volitionally by living matter’s desire to move to higher levels of “vibration”: “...each emerging species represented life — matter — moving into its next highest vibration.

“Finally, the progression ended. There at the pinnacle stood humankind” (p 100). In fact, despite the changes with time and the appearance of progress, natural selection is most properly understood as a “purposeless” process, driven by mechanisms which function without intent and without a goal. Redfield sees things differently: “Humans are carrying forth the universe’s evolution towards higher and higher vibrational complexity” (p 117). “We exist at a higher energy, at a level — get this (sic) — of higher vibration... This evolution has been going on unconsciously throughout human history. That explains why civilization has progressed and why humans have grown larger, lived longer, and so forth” (p 120). What about improvements in medicine and nutrition, driven by people’s conscious desire to live longer and healthier lives? It would seem to me that these explain our longer lives, but Redfield fails to take notice of this.

This unwarranted teleology leads naturally into yet another abused concept, this time one from the field of cosmology. The Anthropic Cosmological Principle states that the very fact that we (ie, humans, or *anthropos*) are here in the universe has necessary consequences for the kind of universe that this is. For example, since we are composed of matter consisting of stable atoms, the laws of physics must necessarily allow stable atoms to form and to combine into molecules, otherwise we would not be here. In a sense this is simply Bayesian after-the-fact probability, wherein the point of sampling necessarily implies something about prior conditions. Suppose that someone offers me a cloth bag filled with unknown contents. If I draw a black marble out of the bag that was offered to me, then I can conclude — after the fact — that the bag used to contain — prior to the fact — at least one black marble. So far so good: the Anthropic Principle is on sound footing, when taken only this far. Unfortunately, there is an “abused” version of the Anthropic Principle which states not only that our existence implies that the universe is a certain way, but also that it *must be* this way and could have been no *other way*. This “strong” version of the Anthropic Principle is equivalent to saying that the bag *must* have had a black marble in it, when I might have pulled out a white marble, or a pair of dice, or any of million other possibilities. In each of these other possibilities, I would still have no idea whether the bag contained a black marble or not. The mistake is to assume that what happens to be true, must have been true. While this error is comparatively easy to see in the case of drawing things from a bag, it is easier to overlook when talking about the universe as a whole. By adopting the strong form of the Anthropic Cosmological Principle, the many possibilities are overlooked; and so the progressive changes with time appear inevitable, as if they must have occurred the way they did, and the changes appear ultimately purposeful. Thus, for Redfield the universe is “evolving, as if under some guiding plan,

continued p 36...

Nothing but sex, sex, sex

Tim Mendham

What is it about wowers - and by that I mean ultra-right wing fundamentalist Christian do-gooders who like to tell everyone else how to live their lives. What makes them so obsessed with sex, sex, sex! that they find it everywhere, even where it ain't.

We all know that the latest target of the one-track-minded (a dirt track, do I hear you say?) is Disney's almost latest mega-buck success, *The Lion King*, one of the most financially successful films in the history of cinema, let alone the most successful cartoon.

Perhaps that's its problem. By being so successful, it naturally caught the attention of the evangelical set, who trashed their slo-mo VCRs looking for the juicy bits. And naturally, enough, they found it. The word "sex" (ooh!) was formed by a cloud of dust raised in some typically no doubt disgusting animal activity. Of course it was there! You can see anything in a cloud of dust if you put your mind to it.

It reminds me of a "Peanuts" comic strip many years ago where Lucy, thumb-sucking Linus and hard-done-by Charlie Brown are lying on a hill staring at clouds. Lucy makes the point about seeing shapes in the clouds, and asks for suggestions from the boys. Linus pipes up with one cloud looking like the bust of Thomas Eakins, the painter, another looks like a particular South American country (I can't remember which) and a third looks like a scene from the New Testament - the stoning of St Thomas ("I think I can see St Paul standing off to one side" he adds).

Lucy complements him on his imagination, and asks for Charlie Brown's suggestions. Sadly he admits "I was going to say I saw a ducky and a horsey, but I changed my mind."

Charles Schultz, the creator of "Peanuts", used to be (still is?) a Sunday school teacher. It's a shame his colleagues didn't get the message.

But of course, *The Lion King* was not the first of Disney's films to cross over the borderline of good taste and salaciousness.

The company's previous mega-whopper, *Aladdin* has a sequence in which the young flying carpeteer advises "All good teenagers take off your clothes". No-one followed this advice when I saw the film - I must have been at the wrong session.

Of course, the makers claim that this is just of bit of mis-audiostanding. The real words of Aladdin were to his pet tiger, and along the lines of "Scat, good tiger, take off and go." This was said after the hero had landed on the balcony of the heroine, Princess Jasmine or whatever, and was looking forward to a little bill and coo. So perhaps the words the do-gooders thought were there might have been more appropriate in the context.

There are other examples of Disney being beyond the

pale. But this seems to be a recent obsession. I don't recall anyone standing up and throwing Jaffas at the screen when the barely pubescent female centaurs made their saucy and tantalising appearance in *Fantasia*. And why doesn't Donald Duck wear trousers - he wears a hat after all!

Musical bad guys

The world of rock music has been a regular victim of Christian outrage.

Ever since the first classic backbeat platter was spun on the drugstore jukebox, clergy have complained of "the beat! the beat!" designed to send bobbysoxers and their ilk into paroxysms of sexual depravity.

They might be right, of course. "Rock and roll" is a black culture euphemism (hardly disguised) for sex, as in the early number "Roll with me Henry", later bowdlerised by none other than the highly correct Pat Boone as "Dance with me Henry" (hang on, that can't be right, surely that should be "Dance with me Henrietta"!?).

Since then the secret messages have come hard and fast. If it's not the Beatles "tit tit titting" in the background of "Girl" (they admit that one) then it's orders to kill yourself embedded backwards in the songs of such as Ozzie Osbourne, ex-lead singer of Black Sabbath, and Judas Priest (fine religious band names, these).

The fact that the only ones who seem to obey these orders are the maladjusted progeny of highly religious families would say to me, at least, that perhaps the blame lies elsewhere than with the barely intellectual endeavours of heavy metal purveyors.

And how can anyone take the overwrought rock group Kiss seriously enough to suggest their name is an acronym for "Kids in the Service of Satan",* merely because they wear silly Halloween costumes, call themselves names like the Prince of Love and stick their tongues out at the camera?

Others have gone out of their way to antagonise religious sensitivities. A stigmatised Madonna cavorting with a come-to-life black crucifixion figure springs readily to mind.

So why bother to pick on poor old Walt (may he rest in peace) and the rest of the harmless brigade?

Obviously because the films and the music are aimed at the impressionable minds of the young, those same minds that need protecting from condom machines at school and sport on Sunday. (Speaking of which, what's the Catholic church doing holding a special pre-Melbourne Cup mass?!)

Impressionable minds is supposed to be the church's territory. What better way to write off the opposition than to tar it with the paranoid brush of subliminal messages - "Your children are being brainwashed", that sort of thing - that no-one but the highly and dubiously motivated would seek out.

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The True Believers

Steve Roberts

The Skeptics have been confronted by a new and merciless opponent! The Anti-sceptic Society, for such is its name, has sallied out onto the critical landscape. (And before anybody asks us yet again, English dictionaries give the spelling either way as correct; in practice the 'k' spelling of ancient Greek is favoured by Americans; there is a lively European bulletin board called The Skeptic Tank). In a sort of union of opposites, they appear to be fans of UFOs and the paranormal, having a dogma that these things exist so strong as to qualify as a sort of UFOlogical fundamentalism. The Anti-sceptics, as their name implies, are critical of the Skeptics, perceiving that we are largely responsible for the dysfunctionality of science in the area of the paranormal. Gosh! I always thought it was because of a lack of evidence and a reputation for fraudulent claims. (But think of the *power* it gives us! **Ed**)

Let us pause to consider the plight of the Anti-sceptic Society, which in practice appears to consist of one abusive individual. Since this person subscribes to *the Skeptic* (hello!) one might think that his first move should have been to cancel his subscription, preferably in disgust. This would save \$25 which must be sorely needed for anti-scepticism, what with never asking questions and having to accept all claims as true, in order to avoid questioning, analysis, confirmation, judgement and all those other little foibles of us Skeptics. One wonders how an Anti-sceptic reacts to TV commercials, election promises or mundane statements like "see you later" or "I'll think about it".

Anyway, to work; let us actually watch and analyse a video-tape of UFO sightings that the Anti-sceptic Society sent us (with all the more gusto, knowing that none of the newspapers or famous people who forwarded their copies of the tape to us have actually watched theirs). I have had much experience of UFOlogy, starting as a true believer and running my own hard-working UFO group; I became more sceptical when we analysed a huge body of UFO reports, hoping to find definitive evidence, and found none. Therefore, on this occasion as always, I eagerly looked forward to seeing some decent UFO sightings and I would be very glad to see some suitably extraordinary evidence to back up the extraordinary claims of UFOlogy.

But as has happened so often before (actually it's been every time but I am trying not to be dogmatic or categorical) there was nothing worth worrying about on the whole tape. An hour-long Mexican documentary of great naivety and dullness was followed by two reasonable shorts of John Auchettl and Richard Hoagland, then by some very badly filmed aircraft buzzing over the vicinity of Roswell, New Mexico - a town famed among other things for its operationally ready USAF base, from which the latest technology flies extensively.

I called the Anti-sceptic himself and after getting myself called a "dimwit" "thicko" and "right-wing loony" (great

paranormal perspicacity there - I'm a leftie who fled from Thatcher's Britain) I pointed out that the video-tape's UFO filmed from Mexico during the 1991 total solar eclipse was clearly Venus. MUFON had already pointed this out, and this was even neatly quoted in the film; but I was taken aback with the proposition that a UFO having the correct position, phase and appearance of Venus in a clear sky doesn't have to be Venus and in any case it can't be Venus because "there's got to be a fucking UFO there".

"So why don't we see two objects - one UFO and one Venus?"

"Suppose there was a UFO right in front of Venus."

- [speechless]

- [triumphant]

Now I do hate to disparage people's religious beliefs, even fundamentalist UFOlogical ones, but let's think further on this. We know (at least I know - the Anti-sceptics either never saw this part of the tape, or saw it and forgot it, and certainly didn't bother to check it again) that it was being filmed by several people in different cities, so somebody must have seen it not in front of Venus, unless of course it was at Venus, in which case nobody would see it anyway.

Attempts by UFO captains to disguise their craft by such positioning are doomed. On board the UFO the alien equivalent of Lt Uhura says "Captain, our view screens show an earthling just about to look up and see us". The alien James T. Kirk frantically has the UFO moved so as to be exactly in line between Venus and one lucky bloke in Mexico City, just in time before the Mexican looks up and starts his video-camera. Speed and direction are constantly adjusted to keep the UFO exactly in line as Venus and Earth orbit the Sun and as the Earth rotates.

So far so good. But what now? "Captain, our sensors detect another earthling 80 km south of the first one, just about to look up at us" "Captain to bridge - move 79.9km south at Warp 10". Alien crew and loose objects are thrown about as the UFO frantically accelerates and decelerates just in time for another Mexican to look up and begin filming it. Lucky that they don't both look at once! And of course "Och, Captain - the engines canna take nae more of this" and "Captain - your decision to position us on the day side of the third planet is leading to excessive stresses on the spacecraft." "Yes, Mr Spock, but just think how the earthlings will interpret our flight path and behaviour - isn't it a laugh". "Captain, I do not understand laughter"

Further scrutiny of the video-tape, together with some calculations easily showed that not only was that UFO really Venus (even the planet's phase is visible!), but two nearby objects that were also picked out by the producers as UFOs were Mars and the star Regulus. Such objects are easily seen in the dark sky of a total eclipse, as any of thousands of astronomers will tell you. Of course they are better seen at night (the planets and stars, that is).

The rest of this hour-long program featured the usual glut of many objects having no detail, mistakes, trivia, and easily identifiable objects declared to be UFOs, including 3 brazen hoaxes, Venus (easily visible in normal daylight), Venus said to be “in front of the clouds”, an object not seen by the cameraman but later found on the recorded film, very many “objects” present for only one frame of the film, a UFO that begins to pass in front of a nearby building before the film is stopped, several balloons, one child’s kite, numerous effects due to saturation of the CCD chip in the camera, a speck of dust on the CCD chip, 9 different aeroplanes, 11 different birds, and 2 different motor vehicles (or possibly flying saucers with horizontally spaced, focused lights, moving slowly and steadily at a very low fixed altitude).

Subsequent viewings of this badly dubbed program left me increasingly amazed, but only at the extent of human credulity. It was hailed by the Anti-sceptics as “without doubt the most remarkable documentary of its type ever produced” and I wholeheartedly agree - the other UFO evidence I have seen is even worse than this.

Moving right along to the second program on the tape, in which John Auchettl with proper objectivity analysed an Endeavour Hills film of two UFOs. He showed that one was metallic, reflecting sunlight, 10 km away and moving at 400 km/h. (Several explanations enter the sceptical mind at this point, one of them involving aeroplanes.) The other one was of similar appearance and moved across the field of view three times as fast, but he didn’t say how close it was.

Another Endeavour Hills UFO appeared to follow a wobbly flight path for about 1 second - to the great excitement of the Anti-sceptic Society (before I explained it to him) - after passing behind a tall pole that provides the only reference point. Unfortunately the top of the pole had just gone out of frame, the pole was dead straight without any other visible features, and the UFO’s wobbling was up and down, not side to side. Worse hand-held camera work was already evident in the two-UFO sequence just described, where it was carefully ignored.

So far so desperate, but I’ve got to hand the cake to Richard Hoagland (of Face on Mars fame). In the third film on this tape he fronts up a professionally-presented program where he discusses the now-famous 1991 NASA Shuttle UFO. During a live broadcast from Shuttle flight STS-48, a small bright object appears, moves sideways across part of the face of the Earth below and then executes a sharp right-angle turn and rapidly moves away from earth and out of frame. At the same time, another similar object crosses the field of view from bottom to top very quickly and steadily.

The film also shows dozens of similar objects continually streaming away behind the fast-moving Shuttle. As everyone knows, these are particles of surface ice and/or Shuttle wastes, and they move in generally (but not precisely) the same direction. So what can we say about the mysterious two objects that have quite a different flight path? Either:

- * they are two little pieces of ice blown aside by the Shuttle’s attitude jets

Or, as Mr Hoagland would prefer and the Anti-sceptic

Society enthusiastically agree, if you ignore or misinterpret a couple of tedious facts that spoil the story, they are proof of no less than four startling facts, namely that

- * the USA has developed secret gravity-bending flight technology and in 1991 was flying things around at 200,000 mph and under accelerations of 14,000g and
- * the USA has developed a working Star Wars railgun that can fire particles at much higher speeds still and
- * the railgun was using the gravity-bending flight craft for an expensive form of target practice [aiming very badly and missing by miles - thousands of miles] and
- * someone in NASA or on the Shuttle knew about this target practice and arranged to get it filmed live to air, presumably so that the public or the Russians would get to see it and come to these conclusions (why else)?

Pass me Occam’s Razor, please. At least I looked at the tape longer, or more thoroughly, than the Anti-sceptic Society did, since they missed several obvious and important things on the tape. Poor Anti-sceptics - they sent us this tape in the hope of demonstrating that the Skeptics do no research, are not aware of the facts, and are incapable of making rational judgement. At least it was a welcome change from the anonymously mailed, abusive stuff they used to send us.

The Skeptics are not an anti-religious or conspiratorial society - we just ask questions, and I apologise for shattering the cherished, dogmatic beliefs of those who won’t. ■

...Sex from p 25

A meeting of minds

Once upon a time, people who saw demons everywhere found themselves quick smart on the wrong end of a ducking stool. Now its a guest appearance on prime time God-TV and a spread in the tabloids.

Surely, the boot is on the wrong foot. Surely sweet reason would suggest that the purveyors of paranoia should be sent off for a regular half hour with that other profession which likes to find sex underlying everything, the pseudo- and post-Freudian school of psychoanalysis.

If they’re really lucky, they can share the couch with anti-Noddy brigade.

There they can talk at cross purposes for as long as they like. Though they are unlikely to come to any consensus on the merits or otherwise of their particular bent, they can at least agree that it’s nothing but sex, sex, sex out there!

- * In any case, Kitsos would seem to fill the bill better. Sounds more like a Greek salad dressing than a Satanic conspiracy. ■

Flight of Fancy

Allan Lang

On 21 November 1994, the Adelaide *Advertiser* published an article "Lift-off time for our first flying saucer: Russian designers seek \$100m to finish prototype of radical 400-passenger aircraft".

The date seemed a bit early for the silly season, and the article carries the by-line of Graeme O'Neill, respected Australian science journalist, who normally has more sense than this.

The story (originating from London) claimed; "After half a century of myths, hallucinations, rumours, frauds and a rash of alien abductions, the planet Earth has its first genuine flying saucer. And it has been made by the Russians."

Basically, the claim is that the cunning Russians have produced the jet powered EKIP aircraft, the first operating "flying saucer". In the article some fairly bold claims were made about "inventing a radically new form of powered flight", "ingenious advance", "achieved what seemed impossible".

Following the principle that extraordinary claims demand extraordinary proof, I examined the article a little more closely, to see if this extraordinary proof was there. This first thing that struck me was that the less supporting evidence there was available, the greater were the claims.

In the text it was claimed that "the prototype EKIP is capable of carrying 400 passengers." An illustration of "a model of the craft with a section cut away to show how the passengers will be seated", seemed to indicate no more than 82 passengers. A photograph of "a working prototype of the craft", which looked incomplete, which could carry at best a dozen people (more probably 1-2).

Finally "one of the prototypes undergoing tests over the city of Saratov", which was a photograph which could just possibly have been of something not apparently attached to the surface of the earth - the photo is as blurred as any UFO or Loch Ness photograph. However the impression is of something small, very small, say 1-3 feet across the largest dimension. This impression is strengthened by the fact that full size aircraft, even those not of wildly experimental conception, are not usually tested over cities, unlike small models, which can be safely flown over an empty sports arena. Assuming this story is not a complete beat-up (anybody bought any Red Mercury lately) can we make any sense out of all this?

First, Russian designers have long produced some highly unusual, innovative and weird designs. A small proportion of these have even been feasible. (One could even argue that it's not that the EKIP design is bizarre, but by Russian standards, it's not bizarre enough.) Second, it is possible that some cunning plan may make a flying wing design more efficient than a conventional design. However "consuming only a third as much fuel as a conventional aircraft" is doubtful.

Much of the article is speculation, as the designer "Mr Schukin is not explicit about EKIP's design". It is suggested that they "have achieved what seemed impossible - extra lift without extra drag". And "capable of cruising with 400 passengers at more than 600 km/hr for up to 5000 km while consuming only a third as much fuel as a conventional aircraft." The problem is that wing design does not consume fuel, technically speaking, that job is done by the engines.

A typical 400 passenger aircraft, at 600,000 lb maximum weight, needs about 40-50000 lb cruise thrust, produced from engines with a cruise rating specific fuel consumption (sfc) of typically about 0.5 lb/lbthrust/hour.¹

This equates to about 22500 lb/hr or 47.4 lb/nm (pound/nautical mile). The EKIP consumption is claimed to be one-third of this. One third of 22500 gives 7500lb/hr implying a cruise thrust of 15000 lb. If one third of the per mile rate is meant, one third of 47.4 is 15.8 lb/nm, which at the claimed 325 knots is about 5100 lb/hr, implying a cruise thrust of 10000 lb.

No problem, a couple of the projected Kuznetsov² NK-112 turbofans at 18000 lbs each would take care of either case (and allow for in-flight failure). But there is still the problem of getting the beast off the ground. The real problem is, together with the amazing fuel efficiency, vertical takeoff performance (VTO) is also claimed.

Now any aircraft can only take off vertically by moving a lot of air downwards. With no forward speed, the design of wings and lifting bodies, even those using "principles not known to conventional science" is irrelevant - all the work must be done by the engines.

While military combat aircraft can have jet engine thrust equal or greater than the aircraft operating weight, commercial aircraft have only an engine thrust of between half and two thirds of the aircraft empty weight (ie, without fuel or cargo). Conventional aircraft of about 400 passenger capacity run about 600-800 lb. empty weight per passenger-seat. Allowing the EKIP to be built at 75% of this value give 210000 lb empty weight. Again conventional aircraft of this size burn fuel at about 0.1 lb. per passenger-mile, which for the quoted range of 2694nm is about 108,000lb. - one third of this is 36000lb.

Passengers equate to 200-300 lb each (depending on how much additional cargo is carried) - 400 passengers would mean about 100000 lb. So weight of EKIP (210000 + 36000 + 100000) about 350000 lb. total weight.

Now military VTO aircraft get by with about 15% more engine thrust than takeoff weight: if anything goes wrong the pilot grabs a large yellow and black handle, and deplanes hastily. As it is impossible to provide 400 ejection seats, passenger aircraft have to have enough spare thrust to continue to climb, at maximum weight, even in the event of the total failure of one engine.

So for a four engined EKIP a total thrust of 540,000 lb (1.15% of 1.33% of 350000) is required. This is rather a lot, almost twice as much as that of the largest aircraft in the world, the Antonov An-225 Mriya, which manages to takeoff weighing 600 tons. But it is just imaginable - the Kuznetsov NK-46 engine, fuelled by cryogenic LNG, delivers some 132,275 lb thrust. So four could deliver the required takeoff thrust, but they would be burning 2500-3000 lb of fuel a minute, rather a large fraction of the total fuel load. Also, they could not be throttled back to less than 3000 lb thrust for cruise conditions.

But is Vertical Takeoff claimed for EKIP anyway? Or has it just been assumed by the media? "The Russians also seem to have adapted an idea developed in Britain's famous vertical-takeoff and landing Harrier jump-jet, whose exceptional manoeuvrability gave the RAAF (*sic*) aerial dominance during the Falklands War. The EKIP is described as having two-phase engines, suggesting the same movable-thrust principle is being used to stay stable and manoeuvrable at hovering speeds when its normal aerodynamic controls are ineffective."

About the only fact the general reader would learn from this is that the Royal **Australian** Air Force was involved in the Falklands War.

The phrase "two-phase engines" is not one known to Jane's Aerospace Dictionary, however it is possible that dual-rotation (where the shaft connecting the high pressure turbine/compressor sections rotates in the opposite direction to the shaft connecting the low pressure sections) is meant. This system is used in the Harrier, and by eliminating torque effects, does assist stability (or more correctly minimizes instability), but it has nothing to do with, and therefore does not suggest, vectored-thrust (not movable thrust). Vectored-thrust is also not the way the Harrier manoeuvres at hovering speeds. So while the absence of contra-rotating engines might rule out vertical takeoff, their presence does not imply it. (Many of the Kuznetsov engines feature it.)

The final sentence of the article states; "they are seeking nearly \$100 million from Western investors to complete the prototype and estimate that a further \$1500 billion will be needed to take EKIP into commercial production".

I am assuming that \$1500 million is meant. (\$1500 billion is a bit much to spend considering the price for which you can sell commercial airliners runs well under \$1million per seat).

But this is far too little to develop a revolutionary 400 passenger airliner, considering Boeing just spent \$4 billion to develop the similarly sized, and conventional Boeing 777. Also, last year China and South Korea announced a \$1.5 billion project to develop a 100 passenger aircraft.

So, perhaps the "real" EKIP is the 82 passenger model. This is more reasonable, although 325 kts is about 100kts too slow for a plane intended to fly 2700 nm. A conventional 82 passenger plane would weigh in at 90000 lb and need about 10000 lb engine thrust for cruise and 25-40000 lb for conventional takeoff (or 100000-130000 lb. for vertical takeoff). The discrepancy between the CTO and VTO requirements would seem to rule out the claimed vertical takeoff. And I'm also having doubts about that two-thirds reduction in fuel consumption.

However, is the EKIP really a "radically new form"? It seems remarkably similar to the Burnelli blended wing/fuselage designs which have been around since the 1920s.

The theory behind the design was that using the same structure to contain and lift the cargo would be more efficient than a separate wing and fuselage, giving advantages of some small reductions in construction weight and fuel consumption over a conventional aircraft. A few aircraft to the Burnelli design were built but the advantages were not obvious and the design never really took off³.

There any have been a number of reasons for this:

a) A fuselage designed just to carry things and a wing designed just for lift are individually more efficient than a wing/fuselage doing both.

b) Vincent Burnelli had been previously associated with building of the Christmas Bullet, possibly the worst aircraft ever built.⁴

It should also be considered that:

a) Modern aircraft are faster than the 60-120 kts of those days.

b) Unlike piston engines, turbines are less efficient at lower power outputs. This reduces the benefit of lower power settings.

c) Pressurization of fuselages would add to the weight of the wing/fuselage body.

The advantages of the original design, marginal at best, would be less, if not nonexistent, today.

So What Generated Original Newspaper Article

What is actually flying over Saratov appears to be a small model, which may, or may not, be using some new principle of lift. (It's really very easy to fly a small model. Some time ago there was a vogue for producing improbable flying machines made from foam plastic and propelled by small motors.

The best I saw was a Snoopy piloted dog-kennel.) The photograph of the partly-constructed object is a "technology demonstrator", (if it's not some form of industrial fermentation vessel), which if it actually works, might possibly lead to the development of a commercial aircraft, of considerably less promise than the newspaper piece. The "cutaway" model is a rough speculation of what this commercial version may look like. The text description of a "prototype EKIP capable of carrying 400 passengers" is pure moonshine.

Notes:

1 I intend to use engineering rather than metric measurements for the following reasons:

a) Because of the French atom testing in the Pacific, I am boycotting French weights and measures.

b) The aviation industry is not metricized.

c) No-one can understand metric units anyway. The concept of pounds fuel burnt, per each pound of thrust developed, per hour is both understandable and visualisable. The metric unit of SFC is milligrams per Newton-second. The idea of measuring the fuel burnt by a huge jet engine in milligrams per second means someone has lost the plot.

2 This is the respected Russian engine designer Nikolai Kuznetsov, not the Creationist Dimitri.

3 Sorry!

4 Primary blame for this disaster was due to Dr William Christmas. But it could be claimed that Burnelli's input turned a design incapable of taking off (therefore safe) into a more dangerous one.

5 Conventional aircraft used as a basis of comparison were the 405 passenger MacDonnell Douglas MD-11, and the 80-90 passenger British Aerospace BAe-146. ■

Alien Goes Boinng:

in amateur autopsy shock, horror movie!

Steve Roberts

Long ago when the Skeptics first got going, spoon-bending was all the rage. It was very easy to fool nearly everyone - except for stage magicians, who not only explained how the tricks were done, but in some cases did them better themselves.

Lately there has been a rash of films harking back to a 1947 incident (Roswell NM) in which approx 5 lbs of curious debris was found which the military have now explained as wreckage from a top-secret balloon project, but there is a much more fun story about a crashed spacecraft and recovery and autopsy of cute little alien bodies, with remains still stored at the USAF base at Dayton and consequent vast conspiracy, etc. (An interesting article in the *Skeptical Inquirer* points out that this incident was not even considered a UFO event until about 1980).

A re-enacted film "Roswell" was made commercially and released in 1994, but despite much hype it was not picked up by the cinema chains and went straight to video. Then in August 1995, again with much fanfare, producer Ray Santilli released some lengths of film that he claimed showed scenes from an actual alien autopsy of 1947 - and indeed, that is what the man who sold the film to him told him. This is also available for home video hire and for purchase in Australia. White walls, marble slab, cute little alien body, surgeons in protective suiting, little trays, little sharp knives, blood, organs, ugh, yuk. The scenes do look sort of genuine and at first fooled nearly everyone - except special-effects experts whose derision has become louder and louder. Now UFO groups that at first acclaimed the film are frantically trying to eat their words! And Ray Santilli, very wisely, has still not submitted the physical film to Kodak for dating tests that would show it to be from 1947 stock.

As everyone knows by now, spectacular horror and other effects are possible with advanced techniques of make-up, prostheses etc. There is a thriving subculture of magazines and films relating to such endeavours, and quite a big community of special-effects companies and experts who exchange ideas and notes (and derision). The "Truly Dangerous Company" is one such and their excellent Internet pages show scenes from both alien-autopsy films with written commentary - including the biting remark that they could have made a better alien body themselves with a couple of weeks' work. Under the headline "Duelling Autopsies" they compare the two alien bodies and award marks for the one they like better.

Summarised with permission from the Truly Dangerous Company's display on Internet, the blunders in the supposedly 1947 video include:

The alien's shoulders don't sag down to the table, and the skin of the back shows no sign of softness or compression where it meets the table. We never see the back of the alien. The shape of the body's fat and muscles

indicate that it was made from a cast of someone standing up. From first to last shot the position of the body is exactly the same - it never moved during the whole autopsy.

The cameraman often triggers his camera immediately before something interesting happens, and is pointing at the right place when it does. A number of shots are framed to allow room for something that hasn't happened yet - but does as soon as the shot begins.

The doctor lays hands on the creature's face, and appears to be looking in its mouth. Does he even attempt to open the jaw, or pull the lips aside? Nope!

The doctor bends the alien's wounded knee slightly - but only to the point where a foam or urethane knee would be expected to start wrinkling. Of all the joints this one is the most likely to bend, since half of its material is missing. Perhaps this is why we never see any attempt to manipulate the other joints. Also the knee-bending scene takes place over two shots - the doctor bends the knee in a close-up shot, then an end-of-roll flare appears and a few minutes must have passed while the cameraman changed rolls of film and rewound the camera. When filming resumes, now in a wide-angle shot we find the doctor still bending the knee! Must be one fascinating knee bend there.

The bending of the wrist shows no sign of elastic skin sliding over an under-structure. The curvature of the bend suggests the wrist is a boneless tube. When the hand flops to the table, the fingers don't bounce.

After abdominal incision and removal of several organs (which, curiously, are not joined to anything) it becomes apparent that the alien, which is of humanoid form, does not possess a pelvis or thigh bones - only empty space.

As the examiner prepares to remove the eye membranes, he lays his hand on the alien's forehead and moves the head slightly. The resulting motion is very stiff, and occurs only at the join between the neck and head, rather than the compound move a humanoid neck should show.

With the camera on the examiner's left side, the examiner begins the cut on the far side of the alien's head, working his way around to the top of the head. The shot ends as the scalpel is still in motion. The next shot begins with the camera on the examiner's other side; the scalpel still sawing - and within an inch or two of where it was in the previous shot.

As the scalpel moves down the side of the head, past the ear, several square inches of the side of the head dimple inward. Unusual for skin being cleanly cut, but typical of a rubber surface being pressed against.

The lengthy "sawing the skull cap" scene never shows the actual breakthrough of the skull, or the removal of the skull cap. Instead, the film jumps directly from the sawing to the removal of the brain. Only the sawing of the forehead

Continued p 33 ...

Prostate Cancer and Chinese Medicine

Harry Edwards

WARNING:

This article is classified MR (Mature Readers). It contains graphic descriptions of surgical mutilation, explicit references to male genitalia, and material some readers may find disconcerting.

It is an unfortunate and inevitable fact of life, that most men over the age of 50 years, will at best, eventually suffer the consequences of an enlarged prostate¹, or at worst, die from prostate cancer. (5000 deaths a year in Australia).

The symptoms of an enlarged prostate are readily recognisable - restricted urinary flow, frequent visits to the toilet and an inability to control one's bladder. Apart from the occasional embarrassment of wetting one's underpants, itineraries have to be planned between toilets, an undisturbed night's sleep becomes impossible, and the recurrent nightmare, that the day will eventually dawn, when there is no alternative other than to have one's crown jewels burgled by the surgeon's knife with the added possibility of impotence the outcome.

Specialists assured me that my prostate was not cancerous, and for nearly ten years I suffered stoically in varying degrees, reassuring myself that although an inconvenience, my condition was not deteriorating and I could live with it. Faith in my constitution however, was misplaced, for without warning, the urethra constricted overnight and at 6 am the following morning I found myself in the emergency ward of the local hospital scheduled for immediate surgery. Like it or not, my time had come.

For those male readers yet to face the prospect of surgery, let me assure them that it was a painless operation with little or no discomfort afterwards. That is of course, assuming you were, like me, given a spinal anaesthetic before surgery, ouch! The benefits ensuing are immediate and akin to the ecstasy of becoming a born again Christian! Or in my case, the joy of re-discovering the fountain of youth! Sexual intercourse after the operation is normal, and the pleasurable climacteric sensation of ejaculation is not diminished, albeit the semen is discharged into the bladder instead of through the glans penis. This I guess would be seen by many as a plus anyway! Just one word of advice however, for those apprehensive of surgery, *don't* let anyone remove the catheter until you stop passing blood clots. In my case I believe it was removed too soon; the urethra blocked up solid, and the excruciating pain of having the catheter forced up through the blood clots and the raw wound in the prostate gland I wouldn't wish on my worst enemy. My aura imprint on the hospital ward ceiling is testimony to that experience!

Co-incidentally with my incarceration, I read Sir William Keys' (the former National President of the RSL) book, *Flowers in Winter*, which, according to the blurb on the

cover, was an account of Sir William's battle with prostate cancer and the (alleged) success of the herbal treatment he sought in China.

A word of caution before you rush out and buy the book; if you expect to read about a simple Chinese herbal cure for prostate cancer, you won't. Of the two hundred pages, only a dozen or so deal specifically with the subject of prostate cancer and its treatment, the rest consists of family minutiae, Asian history, war time reminiscences, and references to the author's business activities.

In December 1993, at age 70, Sir William was operated on for a cancerous prostate, but it was found that the cancer had moved to his lymph nodes. A Bilateral Subcapsular Orchidectomy removed the lymph nodes, the prostate was left untouched. It was a mild invasion of the lymphatic system and the patient was told that the spread could be controlled and the cancer kept in remission. A previous ultrasound and physical examination showed that the patient's bladder, lungs, liver, kidneys and bones were all clear.

Post operative treatment was a chemical compound - Flutamide, three times a day, the aim being to provide total androgen deprivation, an effective restraint to the cancer's spread. (Flutamide was later changed to a drug called Androcur as the Flutamide was causing the patient to suffer occasional hot flushes.)

Sir William's past medical history was good, apart from a bout of Hepatitis B and glandular fever 20 years previously, and he was told by his specialist he could live for another fifteen years. In answer to the question "could I live to be 90?" the answer was "yes." Given that Sir William was already 70 years old, his life expectancy then was no more or less than what he could have expected with or without prostate cancer in remission.

Most of us I suspect would be happy and content to know that the problem was under control and that one's normal life expectancy was not in jeopardy, not so Sir William.

Prior to his hospitalisation the author, who had business interests in China, had intended to go to that country for negotiations with a supplier, and then on to Korea to plan and develop a market for some of his products. Siung Yang, his business partner, told him that the Chinese were having remarkable successes treating cancer with herbs and meditation, and the prospects of a "cure" being infinitely more attractive than "remission" persuaded Sir William to go along with the Chinese treatment.

Dr Bai Shizao, a former physician to Mao Zedong, agreed to treat Sir William provided he came to Beijing. The reason given was that the large quantity of herbs and other dietary requirements needed to be brought to Australia were a difficult option. (Perhaps being labeled a cancer

quack was another!)

As meditation was to be an important part of Sir William's treatment, he was advised to commence practising it before going to China. His tutor, Mr Feng, a Master of Meditation, in the Sydney suburb of Eastwood, explained that there were two forms of meditation. One is the quiet form where the object is to empty the mind of all thoughts. The other, the active form, where people would move around, thump tables or each other, cry, and generally give way to uninhibited expression. (Primal scream?) Meditation he was told would stimulate the flow of *Chi*. (More on that aspect later.)

In addition to Flutamide, Dr Earl Owen, a microsurgeon and Medical Director of the Microsurgery Centre in Sydney, advised Sir William to take Selenium, a trace element that is missing in the soil and water in Australia² and an important antioxidant.

In Beijing, Stella Lee, one of Sir William's business partners, had made all the necessary arrangements for his medical treatment with a smiling, vivacious and elegant co-ordinator, 35 year old Shao Bin, (an *entrepreneur*?) who had given her a package price of \$US10,000 (approx \$Aus13,000) for four weeks treatment, including accommodation, meals, consultations with the doctors, herbal medicine and incidentals. Yes, even Sir William thought it "a bit excessive!"

The treatment commenced with a medical examination by Dr Bai, who pronounced Sir William as being reasonably fit. One of the items of medical equipment used by Dr Bai was a small roller device "which beeped when it was close to some portion of the anatomy that was infected or not in the best condition." (One of those mysterious black boxes so popular with orgone energy nuts? Down sceptic, down!)

Dr Bai recommended continuing with the Flutamide and the Selenium, and approved of the Sunrider diet, with its complex fibre content, brought from Australia. Dr Bai's treatment would consist of mugs of herbal medicine, a special diet, and daily meditation under the instruction of Professor Miao.

Meditation was to be for two twenty minutes periods each day and two mugs of a hot vile tasting herbal concoction were to be drunk morning and night.

(Personally, I think the old remedy for what ails you - a cuppa tea, a Bex and a good lie down, would have been just as efficacious, and much cheaper to boot!)

Moving through the next hundred pages or so, much of which reads more like a romantic novel than a serious treatment of a serious subject, we come to Dr Bai's final examination. No blood test, no Prostate Specific Antigen (PSA)³ test, no ultrasound, no X-rays, just an examination of the palms and backs of the hands and a feel of the various pressure points on the wrists and palms. Sir William's condition was greatly improved, he was told; his system, including the prostate was clear, and the heart and blood flow were in good order. The lymph system however, needed further treatment to finally clear all the infection. Dr Bai recommended continuing with the Western medicine, diet, meditation and herbal medicine on returning to Australia. He further advised, no red meat, no preservatives, no alcohol, no hot flavourings such as pepper, chilli, curry or mustard, don't overeat and avoid stress. Exactly what one would expect from any dietician. Sir William was told nothing he didn't already know.

Going back to the beginning of the book I re-read the chapter where Siung sung the praises of Dr Bai Shizao, touted as "China's leading practitioner in herbal medical treatment", who had "a remarkably successful record in treating patients who had the same condition as Sir William." This being so, why was Dr Bai happy for Sir William to stick with his Western medication during the herbal treatment and recommend that he continue with it thereafter?

Digressing a little, throughout the book there is a constant reference to *Chi*, (sometimes referred to as *qi*) that mysterious, invisible, undetectable product of Chinese philosophical thought alleged to be the life force or energy circulating throughout our body. It is also believed that the "flow" can be controlled and directed to where its healing qualities are needed. Meditation is said to stimulate the *chi* activity.

Prior to Sir William's operation, his PSA had been 11.2, with a safety margin of 0 to 4. While this was regarded as an excessively high level, I have been informed of cases where the PSA reading was in the hundreds. The result of his test on returning to Australia was a PSA level of 0.4. Later blood tests showed that it had fallen to 0.2. He was at that point, still taking Androcur, Selenium, Vitamin B complex and liver tablets as well as following the diet and meditation regime of Professor Miao.

Unfortunately there is no mention of a PSA test in the days immediately after the operation, an essential piece of information necessary to determine when, if and whether, the level had dropped before or after Dr Bai's treatment.

At his third appointment with his doctor after returning to Australia, Sir William put the questions, "What do you think of the medical treatment I had in China? and what contribution do you think that made to my present state of good health?" Dr David Golovsky replied:

"I have been trained and have worked in the culture of orthodox Western medicine. The treatments I recommend are based on, and supported by scientific evidence, and I have a deeply held confidence in their effectiveness. Let me say immediately however, that not for a moment would I suggest the treatment you received in China did not assist and contribute to your present condition. I have a great respect for the philosophy that links the mind with the body, and treats the human person as one entity. The benefits that can provide to a patient are widely recognised. The value of a good diet is also widely recognised. One of my problems, however, with the general profession of naturopathy and alternative medicine is that it is often practised by people who are inexperienced and untrained, and can best be described as charlatans. In answer to your question, I can say: yes, I can see that benefits can be derived from alternative medical treatments. In your case I would be the last to deny that you have been helped by these other processes. I only say that you must be very careful about the people from whom you seek alternative treatment."

So what are we to conclude?

Ignoring Dr Golovsky's warnings, Sir William saw this as an endorsement of alternative medical therapy, but was it? When Dr Golovsky referred to the beneficial aspects

of the Chinese treatment was he referring to diet, rest and attitude?

We know that Sir William responded favourably to orthodox Western medical treatment and that the cancer was in remission, and most would concede that correct diet, rest and a positive attitude are conducive to healing. But what of the foul tasting herbal concoction, the wild card in the pack? Perhaps a chemical analysis would provide an answer, and an examination of Dr Bai's pain detecting roller could prove to be illuminating.

Thus we are left to ponder on an enigma.

Did the Chinese herbal treatment *per se* contribute to Sir William's recovery?

He evidently thinks so, and promotes this belief by including in his book, 18 pages of appendices listing all the Traditional Chinese Medicine associations, and the names, addresses and telephone numbers of every Holistic Medical Practitioner in Australia.

Given the potential market and Sir William Keys profile, *Flowers in Winter* will be well received by males over 50s. How many will uncritically accept its subjective contents?

As a final aside. Information regarding the medical expenses incurred in China revealed that the doctors had received \$US1000 between them for their services and that \$US1000 would be a generous allowance for the herbal treatment. The total cost for the month in Beijing coming to \$US4000. The balance of \$US6000 evidently ended up in the pockets of Shao Bin the enterprising co-ordinator. On page 137, Sir William comments:

"We males hate being taken for a ride, especially by a member of the opposite sex, and it appeared quite clear to me that I had been done like the proverbial dinner!"

Shades of the Philippine Psychic Surgery scams of the 1970s?

Notes

1 The prostate gland is a walnut sized body that surrounds the beginning of the male urethra adjacent to the bladder. It contributes a secretion to the seminal fluid. Age-related swelling of the prostate is referred to as benign prostatic hyperplasia (BHP), and is an almost universal phenomenon in aging.

2 The reference to the trace element selenium, missing from the soil in "Australia", (p21) may be a misprint, perhaps it should have read "China." I am informed that there is a specific selenium deficiency condition called Keshan disease, named after the province in China where it was noted to be endemic.

3 Prostate-specific antigen (PSA) is a biochemical marker that is produced by, and specific for prostatic tissue. Any process that disrupts the normal prostate structure causes "leakage" of PSA into the bloodstream. PSA measurement can be used for screening, as well as to monitor the effects of treatment. Prostate cancer is often associated with very high levels.

My grateful thanks go to Dr Stephen Basser, of the Australian Skeptics (Vic) , for his review of this article, suggestions and comments. ■

...Alien, from p 30

area is filmed. To completely open the skull cap, the examiner would have had to saw completely around the circumference of the head, which would require turning the alien's head to both sides, then probably turning the body completely over. None of what must have been a lengthy procedure is seen. A coincidental omission - or more evidence that the alien's head doesn't turn, and the body wasn't built to look good when face-down?

Possibly the cutest moment in the entire film occurs as the brain (another freestanding organ not plugged in to anything else) is removed and placed in the tray. The alien's head is visible in the lower portion of the frame, partially covered by the flap of scalp. The assistant brings the pan into frame, then grabs the alien's head to steady it while the brain is removed. At the moment the brain is placed in the pan, he lets go of the head - and it bounces rapidly back and forth. He quickly reaches out again to stop the head from bouncing!

The only time an examiner acknowledges the camera's existence occurs during the scalp removal sequence. The camera is close on the examiner's hands as he prepares to use his scalpel on the skin of the scalp. Suddenly the examiner turns to the camera, waves directly at the lens, then turns away. The shot stops there. The next shot shows the beginning of the same action, and this time the examiner proceeds without stopping. It's possible the examiner was warning the cameraman, or angry at something he said or did. It's also possible this is an actor breaking character to say "Cut, cut! I blew it!"

The complete film doesn't show any sign of "hot frames". Every time a spring-wound camera begins to roll, it requires a fraction of a second to get to full speed, overexposing the first few frames. This overexposure results in a telltale flash at the beginning of every shot. None are seen here.

We see only two walls of the "exam room". Although the cameraman moves to the foot and the far side of the table many times, he always manages to avoid showing the opposite side of the room. Coincidence? Or are there movie lights or crew members we're not supposed to see? Or is there no "other side" of the room at all?

This film includes the initial examination, the first incision, the removal of many major organs, the scalp incision, and the removal of the brain. The cameraman supposedly turned the rest of his footage over to the military. So what's on the film the military got? Apparently they never noticed all the major events of the autopsy were missing.

The examiners never acknowledge the camera operator (other than the one unusual moment listed above) or glance at the camera. They're never surprised when he sprints in to shoot over their shoulders or under their armpits. He runs all around the room, supposedly at random, and yet never seems to get in their way, and vice versa. Their behaviour suggests they're not just ignoring him - they're pretending he isn't there. Watch your old home movies - people who are being filmed in candid scenes usually glance at the camera. Actors know they're not supposed to.

In putting this article together, I gratefully acknowledge the assistance I received from:

Web Page <http://www.trudang.com> ■

Lucy's Knee Joint:

How creationists deal with their errors

James Lippard

Some background, by Colin P. Groves

Email offers many pleasures, and if you subscribe to the right Internet you come by some lovely titbits. Through "Skeptic" (which I joined after my resistance to Barry Williams' urging finally crumbled) I struck up a correspondence with an expatriate marsupial, Jim Foley, who forwarded to me this article by Californian skeptic Jim Lippard. The tale it tells is an indictment of creationists' attitude to the truth (not to mention to a respected scientist's reputation), and is so horrendous, yet so predictable, that I felt it must be made available to the world at large (the 99.9999% of you without mod cons); so I got in touch with Jim Lippard and asked him if I could have it printed in the Skeptic. He readily agreed. I have cut out a couple of sentences, and changed his third-person to "I". I have also added some explanatory context.

Over a number of excavation seasons in the 1970s the American palaeoanthropologist Don Johanson discovered a series of important hominid fossils at Hadar, in the Afar region of northern Ethiopia. Prominent among these were A.L.288-1, a 40%-complete skeleton nicknamed "Lucy"; A.L.333, a set of fossils dubbed "The First Family"; and many others. ("A.L." stands for "Afar Locality": the find-sites were scattered over a wide area, and the specimens were recovered from different stratigraphic levels). And also A.L.128-1, a knee joint. Later on, a new species Australopithecus afarensis, was erected on the evidence of these and other fossils; as described by Johanson & Edey (1981), the species combined an apelike small brain with a bipedal locomotion and canine teeth intermediate between human and ape. The evidence for bipedalism, incidentally, comes from Lucy's pelvis and lumbar vertebrae, and the lower limb remains of both Lucy and the First Family; but that knee-joint is such a nice specimen that Johanson in his public lectures likes to give it a place of prominence. Now read on...

Creationists in the United States have been making the claim that the palaeoanthropologist Don Johanson found the knee joint of "Lucy", on which the claim that she was bipedal was based, not along with the rest of the Lucy skeleton but "Sixty to seventy meters lower in the strata and two to three kilometres away" (Willis, 1987), sometimes adding that "Only under questioning did [Johanson] admit that the knee was found over a mile from Lucy. To the best of our knowledge, this admission has not appeared in print!" (Willis, 1987; see also Brown, 1989a:44). This claim is used by creationists to show that (a) "evolutionists" are dishonest and (b) "Lucy" did not walk upright.

The creationists' claim is not only false, it is clearly shown to be false in Johanson's publications (see for example Johanson & Edey, 1981, chs. 7-8), and it has been

pointed out repeatedly to its proponents that it is false; despite which, none of the major proponents of the claim has publicly retracted it. One major proponent has privately agreed that it is false; a few creationists have agreed to stop repeating it; only one, minor, proponent has made a public retraction.

The claim originated with Tom Willis, head of the Creation Science Association for Mid-America, in an article he wrote for the *Bible-Science Newsletter* in 1987, in which he reported on a lecture by Johanson at the University of Missouri on November 20, 1986. Willis reported the following exchange during the question-and-answer session that followed the lecture:

Q. How far away from Lucy did you find the knee?

A. Sixty to seventy meters lower in the strata and two to three kilometres away.

What Willis did not mention in his article is that the question was not how far away from Lucy her own knee joint was found, but rather how far away was the find-site of the knee-joint that Johanson had found the year before he discovered Lucy. The discoveries of both the original knee-joint (in 1973) and Lucy (in 1974), along with the other *Australopithecus afarensis* remains, are described in detail - including the locations of the finds - in Johanson & Edey (1981) and in the articles in the April 1982 issue of the *American Journal of Physical Anthropology*. The creationist misunderstanding would not have occurred had either of these sources been consulted. Johanson's writings have always been clear about the fact that the 1973 knee-joint was a separate find from Lucy [and that the bipedal claim absolutely does not rest on the knee-joint, as Willis and others pretend - **C.P.G.**]. All of the bones shown in photographs of Lucy were found at a single location.

The problem has been compounded by the Institute for Creation Research's use of the name "Lucy" to refer both the species *Australopithecus afarensis* and the Lucy skeleton itself:

"In the fall of 1973, near Hadar, Dr Johanson found the fossil of what is now called Lucy. The reason it is called Lucy is that the Beatles song "Lucy in the Sky with Diamonds" was playing the camp when the fossil was discovered. The first specimen of Lucy to be uncovered was a knee joint. At first this was judged to be a monkey; it was later labelled by Johanson as a hominid. Lucy is a 40% complete female skeleton."

(John Rajca, ICR Museum director, in an ICR radio program, June 18, 1994)

The same use of the name "Lucy" to refer to the species *A. afarensis* in general unfortunately occurs in a diagram in the November, 1985, *National Geographic* (Weaver, 1985:593). Willis (n.d.) has referred to this misleading

photo caption as “the stuff of the all-time greatest evolution fraud”, allegedly perpetrated by Don Johanson with the *National Geographic* staff as dupes or accomplices.

The claim that Lucy’s knee-joint was found separate from the rest of the skeleton has been made by Russell Arndts (1991), Walter Brown (1989a), Donald Chittick (1994), Michael Girouard (1989), Kent Hovind (1993a), David McAllister (1993a), David Menton (1988), John Morris (1989), Dave and Mary Jo Nutting (1991, 1993, 1994), and Paul Taylor (1989), as well as Tom Willis (1987) [and presumably basing themselves entirely on Willis: creationists almost never bother to check their sources. - **C.P.G.**]. The following is a brief summary of attempts to get retractions:

1) Arndts was corrected by a letter I wrote to the editor of the *Bible-Science Newsletter* (April 12, 1991). The letter was neither published nor even acknowledged. A copy of a draft of the present article was sent to Arndts c/o the *Bible-Science News* on July 13, 1994. Arndts never replied.

2) Brown was corrected by me (1989-90 and 1989), quoting from Johanson (1989). Brown’s response (1989b and 1989-90) was to evade the issue and instead offer a criticism of a completely different set of Johanson’s Hadar finds. I (1990) replied, quoting from Johanson (1990); Brown never responded further. A letter from me to Origins Research in May 1990 (later published in Lippard, 1990), responding to Brown (1989b), was never published or acknowledged. A copy of a draft of the present article was sent to Brown on July 13, 1994. Brown never replied.

3) Chittick was sent a copy of a draft of this article on July 13, 1994. In a letter dated July 29, 1994, Chittick replied that “The knee joint found lower and away from the 40% complete skeleton was the item Johanson used in his claim that ‘Lucy’ walked upright”. [This is simply not true: see background above **C.P.G.**]. I wrote back to Chittick asking “what is the evidence that Johanson has ever claimed the 1973 knee joint as belonging to the individual ‘Lucy’?”. Chittick responded on August 26, 1994, by reiterating the example from his earlier letter of the photo caption in the *National Geographic* article (Weaver, 1985). In further exchanges Chittick produced no evidence of any intent by Johanson to deceive. In a letter dated September 12, 1994, Chittick refused to agree with a statement that some creationists have made erroneous claims about Lucy’s knee joint on the grounds that “Without listing specific instances, I have no way of checking that out. Without checking it out, it would not be honest for me to make that claim”. In my letter of September 16, 1994, I responded that “I invite you to read my letter and enclosures of July 13, 1994, which began our correspondence. I listed twelve specific instances with references”. A follow-up note on January 17, 1995, after receiving no reply, produced a January 26, 1995, letter from Chittick indicating that he refused to correspond with me further. Chittick never admitted any error, nor agreed to stop making the knee-joint claim.

4) Girouard was corrected by me in person immediately after his presentation, and given a copy of Johanson (1989). He asked me to write him a letter, and promised to respond. My letter of December 5, 1989, produced no reply. A copy of an early draft of this article was sent to him, c/o the ICR, on July 13, 1994. Girouard never replied.

5) Hovind was corrected by a letter from me (October

30, 1993) and agreed to stop using the claim (1993b). A copy of an early draft of this article was sent to Hovind on July 13, 1994. Hovind never replied, but has continued making the claim (e.g. on July 1, 1995 in Colorado). On July 17, 1995, Jim Foley sent a letter to Hovind about the claim, and in a letter of reply on July 23, 1995, Hovind admitted that he was in error and agreed to stop making the claim and to remove it from his audio tapes.

6) McAllister was corrected in person by me and given copies of Johanson (1989 and 1990). He publicly corrected the mistake during his lecture, and asked for other criticisms of his lecture and seminar workbook by letter. I sent him a detailed critique (November 7, 1993). McAllister (1993b) responded saying that he did not have time to reply at the moment, but would do so before the end of the year. He never did. I sent him a copy of an earlier draft of this article on July 13, 1994. McAllister never replied.

7) Menton was sent a copy of an early draft of this article on February 7, 1995. On April 25, 1995, he contacted me in email stating that he had heard second-hand that this article claimed he had not responded to email that I had sent him about this issue, and accused me of writing a knowing falsehood (ie, lie) to that effect. On the same date, I replied in email noting that the February 7 letter was sent by U.S. mail, c/o the Missouri Association for Creation, which had published the Menton article criticised herein. My email included a copy of the then-current draft of this article. Menton has not replied.

8) Morris (1993) admitted that he had read Lippard (1989-90) and knew the claim was false, but stated that he did not feel that a retraction of his 1989 article was necessary. A copy of the then-current draft of this article was sent to Morris on July 13, 1994. Morris never replied.

9) David Nutting was sent a letter by Jim Foley asking about the claim in January 1994. He did not respond to that letter, and subsequently repeated the claim (1994). Foley sent Nutting another letter, including an early draft of this article, on July 5, 1994. Nutting replied on August 14, 1994, admitting that “it seems that some of the statements you made along with the article are correct” but maintaining (as does Willis, n.d.) that “Johanson gives the impression in lecture... that the two [knee-joint and Lucy] go together - although he never states that”. The Nuttings did not admit any errors nor agree to withdraw any claims.

10) The fourth edition of Taylor’s book (second printing, June 1993) does not mention Willis’s article or the knee-joint claim directly, but part of reference [206] in this edition says:

“Albert W. Mehlert, “A Study of Comments by Evolutionist Authorities on the Alleged Hominids Found in the Hadar/Afar region of Africa”, *Contrast: The Creation-Evolution Controversy*, Vol.6, No.1 (Bible-Science Association, January 87), pp.1-2,4 (provides evidence that “Lucy” was made up of fossils from two separate sites and was an ape, “probably a chimp-like ape”).”

Taylor’s summary of Mehlert (1987) is misleading in its use of the name “Lucy” to refer to the species *A.afarensis*, which Mehlert himself does not do. Mehlert does indeed argue that Lucy (which he erroneously says is from Locality 162; she is from Locality 288) is “a chimp-like ape”, and also that The First Family finds “Included many human bones”. He does not however claim that the

Lucy skeleton was composed of bones from both sites. A copy of an earlier draft of this article was sent to Taylor on July 13, 1994; Taylor replied on August 12, 1994, agreeing that the wording was in error and to correct "this inexcusable mistake" in the next edition.

11) Willis was corrected in a letter I wrote him in 1989, but never responded. A copy of the then-current draft of this article was sent to Willis on July 13, 1994. Willis (n.d.) is a revised version of his original article which recognizes that the 1973 knee-joint is described in Johanson & Edey (1981) as distinct from Lucy but, rather than admitting or retracting error, Willis goes on to accuse Johanson of "misrepresenting the evidence... for money and prestige" and using "the slick presentation style of a con-man to deceive at least two senior staff at *National Geographic*... and several competent scientists". Willis has never responded to any inquiries from this author.

To summarize: twelve creationists have made this bogus claim. Four have never responded in any way to questions about it (Arndts, Girouard, Menton, Willis). Another three have not responded to recent inquiries (Brown, McAllister, Morris). Only four have shown a willingness to discuss the matter (Chittick, the Nuttings, Taylor), but one (Chittick) cut off correspondence. Three have agreed that the claim was in error and agreed to stop making it (Hovind, McAllister, Taylor), the Nuttings agreed to stop making it if further investigation showed that the claim was bogus.

Acknowledgements

Thanks to Jim Foley for the information about the fourth edition of Taylor's book, about David Nutting, and about Hovind's continued use of the claim in his lectures and following up on it with letters. Thanks to K.G. Anderson for information about Rajca and the ICR radio program. Thanks to Stephen Watson for the initial information about Donald Chittick. Thanks to Drew Talley for supplying Menton's article from the ICR BBS.

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...Celestine from p 24

towards ever higher vibrations, creating exact conditions, finally, for humans to emerge... for each of us, as individuals, to emerge" (p 100). How comforting this thought must be for many people: that each person is purposefully chosen to exist. For better or worse, however, this belief has no basis in scientific fact. If there is an intentional guiding plan, it is certainly not one which have ever been glimpsed by empirical science.

I can easily imagine that some people might see this little essay as an extended exercise in nit-picking and pointless scientific orthodoxy. Perhaps. But I see things differently. The errors made by Redfield may indeed be subtle or involve subtle ideas, but they are still significant mistakes. The misappropriation of scientific concepts by the unscientific New Age movements is harmful. Misunderstood and misrepresented, these abused scientific ideas ironically serve to bolster the irrational and the backward, while at the same time giving the appearance of progressiveness and reasonability. Unfortunately, New Age books such as Redfield's *The Celestine Prophecy* are anything but reasonable and actually represent a step backwards into superstition and false beliefs. Truly, this is an abuse of science. ■

Baronet on the Internet

Sir Jim R Wallaby

Sequestered in Australia we can count ourselves fortunate to be insulated, at least for a time, from the more arcane and absurd notions that exercise the minds of our overseas cousins. In particular, this applies to those who live in the USA, whence we assimilate a good deal of our popular culture, and not a little of our paranoia.

As we have mentioned in these pages before, a trip along the highways and byways of the Internet can be a rewarding exercise, and can lead to enlightenment (or even madness). Rather than responding with a measured and pedantic tone, seeking to enlighten the ignorant (which will only result in one being labelled as part of the governmental/scientific establishmentarian/secret world order conspiracy) I find one can derive a measure of harmless amusement from playing them at their own game and by testing the limits of an idea by driving it to its logical extremes. The following examples are illustrative.

A recent foray into one of the dimly lit side streets found this profound observation from a contributor identified only by the name David.

“There are several basic misconceptions about the aliens and their relationship with humans. People assume that there are good and bad aliens and maybe some of those aliens are very enlightened and are here to move humans far forward in their evolution. In fact, NONE of these assumptions are true.

There are NO beneficial aliens now on Earth. There are rules, created by the Celestial Hierarchy, the Angelic ‘staff’ of God, which require non-interference in the development of lesser developed races. These real-life rules are very much like the prime directive as seen on Star Trek. The good, advanced aliens which do exist abide by these rules, and thus do not come to Earth or interact with humans. Thus, THE ALIENS WHICH DO COME TO EARTH AND INTERACT HERE ARE ALL BANDITS, CON-MEN, GANGSTERS, OR EVEN WORSE!

I have no doubt that there are enlightened aliens in the galaxy, but the ones we have contact with all are either ignorant of the rules and not very advanced, or are deceiving us for their own ends. From our experience, the aliens in contact with Earth are extremely vicious and cruel. This is especially true of the Orions, the Reptilians, and the “Men in Black”. David.”*

***Editor's Note:** Readers should be aware that the “Reptilians” are commonly (on the Net) referred to as “The Greys”.

To this message I was forced (by an external power I could not control) to respond:

“Sorry David, but your information on Intergalactic affairs is sadly out of date. At a recent meeting (about 1575 in our dating) of the Galactic High Senate, amendments were made to the non-interference laws, the effect of which was to allow certain benign organisations

to visit Earth (and Ngdlb, a planet on the other side of the galaxy, which is in a similar stage of development) for purposes of research and fun. Among those given this special dispensation are.:

Capellans Into Art (CIA).

A body whose members are exclusively from the fifth sex (namen) of the arachnoid Capellans. Consisting of genuine art lovers, their current favourites are Warhohl and ###-%, the revered mucus dabbler from the planet ?/^O. Usually referred to as the “Puce, with bold purplish highlights”.

Keen Glofers of Betelgeuse (KGB).

Betelgeusians, as I’m sure everyone knows, are a piscoid race renowned for their glofing abilities. Glof is a game, in which a small white ball is struck with a variety of clubs towards and into a hole. The object is to come second in any match. Current Galactic Masters Champion is Betelgeusian native Gre Gnor-Man. The KGB members are popularly known as the “Whites”, hence Gnor-man’s popular soubriquet “the Great White Shark”.

Reverent Society for the Promulgation of Canopan Attitudes (RSPCA).

The canoid Canopans are very religious and this is a missionary group dedicated to bringing the message of the saviour, Phideau, to the benighted heathens of the galaxy. The main tenet of this faith is that fire hydrants and telegraph poles should be more readily available to all the saved. They are commonly known as the “Blues”.

Northern Altair Surfing Association (NASA).

A secretive group of Altairan gastropodoids. The only thing known about them is that their feet are in the form of large fibreglass ellipsoids. The “Mauves”.

I hope this has cleared up any misapprehensions you might have about the *bone fides* of our many colourful galactic visitors, who can only bring economic benefit to this sector of the Galaxy. Please welcome them into your homes and hearts.

Then again, they may only be pigments of our imagination!”

Shortly after I posted this helpful missive (which was never answered, by the way), I came across another posting from an unnamed individual who was concerned with the subject of the infamous “Roswell autopsy” to which young Steve Roberts has alluded in this issue. This individual was not in any way swayed by the persuasive arguments of the “Saucer Crash” theorists. He had his own ideas.

It was based on some lines from the autobiography of General Leslie Groves, the military head of the Manhattan Project. A large 250 ton steel cylinder, with 14 inch thick walls had been constructed and moved to Los Alamos. Code named *Jumbo*, it was, according to General Groves, originally intended that the first nuclear device would be detonated in this container, ostensibly so that in the event that nuclear fission did not occur and only the conventional explosives in the device went bang, the surrounding terrain

would not be contaminated with lumps of unfissioned plutonium. In the event, it was decided not to use the container, which was then set up 500 metres from Ground Zero, presumably to test the effects of nuclear explosions on heavy steel structures. All very plausible and quite probably true.

But this did not impress our correspondent at all. He averred that President Truman was a "33rd degree" Mason, that Los Alamos was at 33 degrees latitude, as were Hiroshima and Nagasaki, and that the secret task of all Masons was to "kill a king, create matter and summon the spirits of other worlds". (I always thought Masons rode billy goats, but there you are.) According to this wonderful theory, a female was placed in the cylinder with the view to producing mutant offspring with "ten fingers on each hand", because, as everyone knows, "someone with twenty fingers can do twice as much work as someone with only ten". (I am not making this up.) Something went wrong, according to the correspondent, and the resultant offspring only had six fingers on each hand. This was the 'entity' that was the subject of the infamous 'autopsy'. The story concluded with the question "If a woman was not inside the cylinder, what was?"

Well then, we had an hypothesis, all of which seemed to derive from a passing reference to an unused safety measure at the first nuclear test. I just had to respond, as follows:

"I have a better and much more plausible theory about the use to which Jumbo was put.

It was filled with two parts rye whiskey, one part sweet vermouth, a splash of Angostura and two cocktail cherries. The vibrations caused by the nuclear detonation were of exactly the correct frequency to mix the contents to perfection.

Why else would they have named it the 'Manhattan Project'?"

Again my helpful suggestion was met with a deafening silence.

The next posting of note was from 'Robert' who held to the old belief that the Earth is hollow. He used as evidence some musing about Admiral Byrd who, in his famous exploration of the North and South Poles, discovered the entrances to the underworld. In the case of the North Pole, this 'hole' is 1400 miles in diameter, while the southern entrance is 1300 miles in diameter, but is "400 miles to the west of the South Pole". The reason why these holes are not more generally known about is that "they are usually filled with a thick fog", although they are shown on some (now suppressed) satellite photographs.

This was temptation, far too sweet to resist, hence:

"As the first man to land a helicopter at the North Pole, it is a wonder that Patron of Australian Skeptics, Dick Smith, did not see fit to mention this vast hole. Perhaps the 'fog' that fills the hole is somehow solidified? What a wonderful building material solidified fog would make; eminently suitable for building castles in the air, for instance. Dick didn't mention a hole near the South Pole either. Perhaps the US Government conspiracy 'fixed' his navigation instruments so that he landed at the East and West Poles instead? Oh, and by the way, there is no such place as '400 miles west of the South Pole'. **Everything** is north of the South Pole."

Then Robert moved to the "Great World War III We Never Heard About" conspiracy.

It all began on September 27, 1977, when the Russians launched "MANNED killer satellites... to wipe out a secret American laser-beam base... in Copernicus Crater on the Moon". Well, things didn't stop there, and the Americans who, in case you didn't know, are "BOLSHEVIK-CONTROLLED" struck back with "82 special secret aircraft, that can sneak up to a country's shoreline under water". These amazing craft "in the Caspian Sea and off northern Norway" received a coded signal and with their "Israeli pilots, were on their way". But Russia had a "master secret weapon", "Psycho-energetic Range Finding" no less, which "tunes into the actual atomic signature of a target, and there is no method known by which PRF can be jammed". I'll just bet there isn't.

But it was to no avail, because the Russians also had "Jumbo Cosmospheres", which fired their "Charged Particle Beam Weapons" and the dastardly Bolshevik American sub-aircraft, with their Israeli pilots, disappeared in "a blinding blue white water spout of steam smoke and fire".

I'm not too sure what the result of these astounding hostilities were, but the author draws some sinister conclusions from the fact that "the United States has announced a deal to purchase at least one SPACE REACTOR from Russia".

My response:

"Well Robert, your extremely plausible posting has converted this hardened old Skeptic. It certainly explains how the Russians are now in charge of the whole world, while the dastardly American Bolsheviks are in such terrible shape. One or two tiny niggling doubts remain though, which I am sure you can clear up.

1. If the Americans were Bolsheviks, what were the Russians?

2. How did the Israelis get into the act? Are they Bolsheviks too? Why didn't the Red Yankees fly/sail the secret sub/aircraft themselves? Are they cowards as well as Bolsheviks? Yellow Reds (or Oranges)?

3. How did the aforementioned sub/aircraft get into the Caspian Sea? Was it through the hole in the North Pole which has another outlet under the Caspian? I'll bet that's the answer.

4. Are you trying to win a competition as Supreme Nut of the Net?"

By now you must be getting the drift. Once upon a time, before the Internet made everyone his own publisher, these astonishing ideas festered, unseen, in the minds of their originators. Even the producers of crank books, magazines and TV programmes would have been wary of some of these. But now anyone with access to a computer and modem can tell the world of their paranoid delusions - and that is precisely what they are doing (those that haven't joined the Anti-sceptic Society, that is). It might be considered appropriate for these people to sell their ideas to science fiction magazines, but, regrettably, the literary skills evinced in these postings are somewhat below the standard found acceptable by even the most undiscerning editor.

So my advice is, get on the Net, play by the rules of the Net and you can have hours of gentle amusement. But be aware: you might find your own satirical offerings coming back to you, slightly amended, quoted as gospel truth (and probably published in *Nexus* magazine)..

REVIEW

Investigation of a Modern Myth

Barry Williams

Watch the Skies! A chronicle of the flying saucer myth, Curtis Peebles; Berkley Books NY, 1995. pb \$14.95

Those Skeptics whose interests encompass the UFO phenomenon will probably have read books by Phillip J Klass, the sceptical doyen of the *genre*, or Robert Sheaffer and articles by these and other authors in the *Skeptical Inquirer*. Each of these investigators has subjected specific cases to keen-eyed scrutiny and have been responsible for de-mythologising many of the events that believers hold dear.

Curtis Peebles, an aviation historian, takes a different tack in the book under review. He looks at the phenomenon as a whole and traces its history from the famous Kenneth Arnold sightings of 1947, which set the whole thing running, to the present day. In doing so, he places the many different phases of the growing myth into its social and political perspective, relative to what was happening in the United States at the time. And it is very much an American social phenomenon, its foreign manifestations being only pale shadows of the myth that exists in the USA.

The myth began at a time when the world was still recovering from the most devastating war in its history. Sightings of mysterious lights and shapes in the sky were taken seriously by a US military that still had vivid memories of Pearl Harbor and was adjusting itself to its new reality as the world's most powerful force and to the burgeoning Cold War. The sightings were investigated as being potential threats to national security - they could have been secret Soviet craft, designed by captured German scientists. The possibility that they could have been from outside Earth was also considered, and almost accepted, by some in official military circles. Investigatory bodies were set up by the Air Force and sightings were thoroughly scrutinised.

After some years of fruitless investigation, it became apparent that most sightings were of misperceived mundane objects, or the result of blatant hoaxes, although some were still designated as 'unknown'. The Air Force tried to close down its investigations, which were always low-key, as evidenced by the fact that the officer in charge was always a captain, far from the pinnacle of the military hierarchy. But it was too late. The hares had been set running, and running they still are.

While this was going on, the first of the 'contact' myths was perpetrated by George Adamski. Almost invariably, the contacts were with benign 'aliens', usually beautiful and highly ethical creatures from the nearby Solar System. Their purpose was to 'guide' Earthlings and to stop nuclear weapons tests and warfare. This reflected the underlying fear in the minds of Americans about potential war with the Soviet Union. It was at about this time that the more 'New Agey' subculture sprang up, the one that denies that

UFOs are real nuts and bolts ships, but reflect 'energies' from some other plane of existence. Crop circles, which hardly rate a mention in the US, are a reflection of this facet, transplanted to another country.

Peebles discusses the various characters and organisations that have sprung up among the believers and the feuds and fallings out that have occurred among them. Many of the people involved are very peculiar indeed, while others seem to live in a world most of us would recognise as normal.

Of particular interest is the sub-myth that "all is about to be revealed". This myth is enjoying a great deal of currency in the US at the moment, as believers try to convince themselves and other that the TRUTH is about to come out. Peebles tells us just how many times during the past 50 years this same view has been expressed.

Evidence is given that shows that UFO 'flaps' (increased sightings) usually occur at times of ill-defined threat to the American psyche and diminish when the threat is real and well understood - there were very few sightings during the Cuban missile crisis. Sightings increased in Presidential election years, as citizens worried about their future. There were many sightings during the time of the Kennedy assassination and its aftermath and again during the Watergate scandal - just at the time when the American's faith in their government was being thoroughly undermined. It was at this time, the myth began to take on the nasty tinge that continues today.

As time passed and nothing was revealed about the 'aliens', the idea of 'Government Conspiracy' grew and continues to grow. But now, the 'aliens' are far from benign - they pose a serious threat to the wellbeing of all people on Earth, but particularly to Americans. The conspiracy view has overtaken all other versions of the myth and the 'abductions' of people for 'breeding experiments' is but the latest of a range of increasingly bizarre claims made about the phenomenon. This is happening at a time when Americans are prone to all manner of conspiracy theories about the machinations of their government and the UFO conspiracy is but one of them. When once the myth was strange but harmless, now it is developing some rather sinister side lights, as anyone who has read the UFO pages on the Internet can attest.

Many of the manifestations of the UFO myth are very difficult for any reasonably rational and sceptical individual to comprehend. Many of the claims made are so obviously absurd as to not only defy belief, but to be utterly incomprehensible to a normal person that *anyone* could believe them - yet many people do. Curtis Peebles' book makes it little easier for us to understand how social conditions can predispose some people to believe in the unbelievable and it is a highly recommended book for all Skeptics. ■

Father Christmas

The truth; the myths

Anthony G. Wheeler

Who believes in Father Christmas? Who is sceptical? And if Father Christmas is a myth, how did it originate? How can a pretend gift-giver become so famous and so popular?

The Legend

Australians know Father Christmas as a tubby, cheerful and very friendly old man dressed in a red suit with white fur trimmings. His long, red, floppy cap end is topped with a white tassel and his boots are shiny black. Children can always tell the real Father Christmas from his many imitators by his deep, hearty Ho! Ho! Ho! laugh.

Every Christmas Santa Claus leaves his home at the North Pole on a sled pulled through the sky by eight magical reindeer - Dasher, Dancer, Prancer, Vixen, Comet, Cupid, Donner and Blitzen. An alternative reindeer, Rudolph, is so popular he has his own song about his bright red nose.

The sled is laden with presents - enough presents for every boy and girl in the whole world. And Santa Claus spends all Christmas Eve night delivering all those presents, parking his reindeer and sled on the snowy roof-tops while he climbs down chimneys to leaving a present at the foot of each child's bed. (It always snows for Father Christmas, even though we might not see it - even in Australia!) If the children leave stockings hung from the bed-post or mantelpiece Father Christmas will obligingly stuff the presents in them. Some houses don't have chimneys these days, but that's okay because Father Christmas' magic can still get him in, though I can't say how.

The presents are only for those children that have been good. Fortunately, since every child is basically really good deep down there has never been any need for Father Christmas to miss out a child. Children soon learn that there is no point trying to stay awake to catch a glimpse of Father Christmas, because he never visits until each child in the house is sound asleep. And if a ever child does rouse and catch a parent fumbling amongst the presents, it's only Mummy or Daddy making sure that all the snow has been brushed off, so the toys won't get wet. No matter how many children there are, Father Christmas always has enough time to visit each and every one.

Children customarily ask their mother for a mince pie and a glass of sherry to leave for Father Christmas to eat after leaving the presents and before proceeding to the next house. No wonder Father Christmas is so tubby! But if your mother suggests leaving a beer and a sausage, or a squash and a sandwich, instead, don't worry because mothers know best. A carrot or two for the reindeer is always welcome too.

After his long night delivering presents Father Christmas returns to his home at the North Pole. He spends all the next year preparing for the next Christmas, with the help of busy elves making more presents for every boy and girl.

In the days before Christmas your parents may take you

to see Father Christmas at the shops, or he may come to see you at a children's party. Of course most of these are pretend Father Christmases. They are really a kindly father that likes children dressed up as Father Christmas to hand out the presents. That's alright, because you can be sure that it's someone friendly. And of course you can never be really sure who it is under that false white beard - after all it just might be the real Father Christmas, just for once.

The Background

Our modern Santa Claus, or Father Christmas, is an amalgam of several old part-historical and part-mythical figures from different cultures.

Nicholas was born in circa 285 in the Roman province of Lycia (in modern Turkey), and miraculously could speak from birth. Orphaned early, young Nicholas gained fame for giving away all his money and gold to three poor girls (they may have been sisters) so that they could marry. Soon after the Bishop of Myra dreamt that the next person to enter his church would himself become a bishop, and the next to enter was the young Nicholas. As a 20-year old bishop Nicholas was imprisoned by the Emperor for defending the persecuted Christians. Ten years later the new Christian Emperor, Constantine, freed Bishop Nicholas. The tall, lean and much venerated Bishop Nicholas served the people of Myra until he died, at about 65 years of age. Nicholas was later made a Saint when he appeared to sailors in the midst of a storm which they feared would sink their ship; Nicholas' appearance miraculously calmed the weather and the sailors survived. Consequently Saint Nicholas is the patron Saint of sailors throughout the world. Saint Nicholas is also the patron saint of children, with his feast day of 6th December being particularly celebrated by the Dutch settlers to the new world where they settled New Amsterdam.

As New Amsterdam became New York (in 1664) with the dominance of British settlers, the new arrivals adopted the tradition of Saint Nicholas' gifts for children, with the Dutch name 'Sinter Claus' becoming 'Santa Claus', and the focus changing from religious to mythical. The traditional gift-giving of St. Nicholas' day was merged with Jesus Christ's official birthday, Christmas Day, on the 25th December, with Santa Claus distributing his presents on Christmas Eve.

Our modern American Santa Claus is based on a children's poem ("The Visit of St. Nicholas", also known as "The Night Before Christmas") written by a professor of divinity, Dr. Clement Clarke Moore, in 1822 in New York. This poem was itself based on Washington Irving's accounts of St. Nicholas gleaned from Dutch settlers in New York. Moore's poem included the sled pulled by reindeer, each of which were named, and the delivery of presents by descending chimneys on Christmas Eve. It is

in Moore's poem that the 'tall and lean' St. Nicholas became an elfin short, tubby and merry Father Christmas familiar to us all. Cartoons by Thomas Nast published in Harper's Weekly in the 1860s to 1880s Christmas issues enlarged Santa to full size and bolstered his new plump and jovial image. (John Tenniel's cartoons in Punch Christmas issues from 1875 to 1889 did a similar service for English readers.) L. Frank Baum (author of The Wizard of Oz) gave Santa Claus a complete history in his The Life and Adventures of Santa Claus, though settling him in Laughing Valley

asked the good witch Befana to accompany them to Bethlehem. But Befana foolishly declined, being far too busy with her housework. Regretting her decision Befana has wandered ever since seeking the Holy Child, sliding down the chimneys every Twelfth Night.

In England Father Christmas in a red suit trimmed with white fur, and in France Pere Noel, bringing the children's presents. In Germany Kriss Kringle (or Christ Child) is a fairy. In Spain the Three Wise Men, each looking like our familiar jovial Father Christmas, bring the presents. In

**The Visit of St. Nicholas (The Night Before Christmas)
Dr. Clement Clarke Moore (1822)**

T'was the night before Christmas
When all through the house
Not a creature was stirring, not even a mouse.
The stockings were hung by the chimney with care,
In hopes that St. Nicholas soon would be there.
The children were nestled all snug in their beds,
While visions of sugarplums danced in their heads,
And mama in her kerchief, and I in my cap
Had just settled down for a long winter's nap.

When out on the lawn there arose such a clatter,
I sprang from the bed to see what was the matter.
Away to the window I flew like a flash,
Tore open the shutters and threw up the sash.
The moon on the breast of the new-fallen snow
Gave that luster of midday to objects below.
When what to my wondering eyes should appear,
But a miniature sleigh and eight tiny reindeer -
With a little old driver so lively and quick,
I knew in a moment it must be St. Nick.

More rapid than eagles his courses they came,
And he whistled, and shouted, and called them by name:
'Now, Dasher! Now, Dancer! Now, Prancer and Vixen!
On, Comet! On, Cupid! On, Donner and Blitzen!
To the top of the porch! To the top of the wall!
Now dash away! Dash away! Dash away all!
As dry leaves that before the wild hurricane fly,
When they meet with an obstacle, mount to the sky,
So up to the housetop the coursers they fly,
With the sleigh full of toys, and St. Nicholas, too.

And then, in a twinkling, I heard on the roof
The prancing and pawing of each little hoof.
As I drew in my head, and was turning around...
Down the chimney St. Nicholas came with a bound!
He was dressed all in fur from his head to his foot,
And his clothes were all tarnished with ashes and soot;
A bundle of toys he had flung on his back,
And he looked like a peddler just opening his pack.

His eyes - how they twinkled, his dimples how merry!
His cheeks were like roses, his nose like a cherry!
His droll little mouth was drawn up like a bow,
And the beard on his chin was as white as the snow.
The stump of a pipe he held tight in his teeth,
And the smoke it encircled his head like a wreath.
He had a broad face and little round belly
That shook when he laughed like a bowl full of jelly.
He was chubby and plump, a right jolly elf,
And I laughed when I saw him in spite of myself!

A wink of his eye and a twist of his head
Soon gave me to know I had nothing to dread.
He spoke not a word, but went straight to his work,
And filled all the stockings - then turned with a jerk...
And laying his finger aside of his nose,
And giving a nod, up the chimney he rose!
He sprang to his sleigh, to his team gave a whistle,
And away they all flew like the down of a thistle,
But I heard him exclaim, ere he drove out of sight...
'HAPPY CHRISTMAS TO ALL, AND TO ALL A GOOD
NIGHT!'

instead of the North Pole.

These three New Yorkers (Moore, Nast and Baum) contributed their best parts to our contemporary version. And so our modern myth of Father Christmas is complete.

Elsewhere the local equivalent of Father Christmas is a very different character. In Holland and Germany, on the eve of St. Nicholas' day, Sinter Claes still arrives from Spain by ship in a white robe and red cassock with his Moorish assistant Zwarte Piet (Black Peter).

The Dutch children leave hay, carrots and water in their shoes before the fireplace for Sintirklass's, or Sinter Claes's, white horse, and in the morning they find instead sweets and presents. Unseen the horse gallops from roof to roof and the Moor scrambles down the chimneys to gather the food for the horse and leave presents for the children. Sinter Claes has to keep his super white robe clean, and so just drops sweets down the chimneys for the children.

In Italy the Christmas myth is that the Three Wise Men

old Russia an evil old woman, Baba Yaga, deliberately misdirected the Three Wise Men. In new Russia Grandfather Frost brings the presents.

Whichever Father Christmas you are expecting, it has become widely expected that Christmas is a time of presents. God gave the people of the Earth the gift of his son Jesus Christ. The three wise men gave the Christ child their birthday gifts of gold, frankincense and myrrh. Now parents, relatives and friends celebrate this greatest gift of all with their own gifts to each other. So watch out for Father Christmas's visit to your house, enjoy his gifts to you, and remember God's gift of Jesus Christ that they celebrate.

The trappings of Christmas

There are no explicit clues in the Bible as to Christ's birthday. The early Eastern Christian Church celebrated the birth of Christ in conjunction with the Epiphany

honoring Christ's baptism on the 6th of January, and later (in the West) commemorated the manifestation of Christ to the Gentiles as exemplified by the three Magi (the wise men). Meanwhile, other early Christians celebrated Christ's birthday on the 20th of May. To settle disputes between the Eastern and Western Christian churches, in about 350 AD Pope Julian set the date of Christ's birthday as the 25th December.

There are two main reasons for choosing this date. One was that Christ's birth marked a new beginning in man's relationship with God, and the winter solstice (about the 22nd December, the shortest day of the year, from when the days start dawning earlier and ending later again) marked the new beginning of the coming year. (Perhaps the Australian Christmas should be celebrated on the 25th June? This would fit the winter solstice, but I doubt it would be popular.)

A second reason is that many pagan festivals celebrated the solstice at the end of the harsh winter as a portent of better times to come for many (warmer spring weather and the crops growing again). The most quoted is the Roman festival of Saturnalia, God of agriculture, celebrated on the 17th December. Rather than risking unpopularity by suppressing these pagan festivals, the Christian church instead took them over, changing the focus of the celebration from the movement of the sun to the birth of God's Child on Earth.

We have five main sources for the trappings of our Christmas: The Roman celebration of Saturnalia (presents and merry-making), the winter solstice celebrations (holly), St. Nicholas (stockings), the symbolism of the Christian Church (holly and minced pies), plus some modern innovations (cards and candles).

The Roman celebration of Saturnalia and similar festivals included wild revelry without restraint, with even the slaves enjoying a temporary liberty. This is the origin of the merrymaking (though rather more restrained now) that became associated with the celebration of Christ's birth. The exchanging of present also dates back to Saturnalia.

Holly, as an evergreen, represents continuing life (and hope) through the long dim, cold winter, in the same way as the evergreen conifers. The red berries represented to some the drops of blood shed by Christ for mankind, and the prickly leaves Christ's crown of thorns given by his captors. (However, these two events are associated with Christ's death at Easter, rather than his birth at Christmas.)

Evergreen trees, bright lights and red colour were typical of the 'bringing-back-the-sun' winter solstice celebrations. The evergreen tree was an early pagan symbol of the winter solstice and the maintenance of life through the depths of winter. It first appeared in Germany in medieval (16-century) times as a Christmas tradition.

When St. Nicholas gave his gift of gold to the three poor girls he may have surreptitiously dropped the coins through smoke holes in their roofs, from where the coins fell into their stockings hung before the fire to dry. Not surprisingly, once the word spread others hung stockings before their fires in the hope of receiving similar surprises. Alternatively, stockings have long been the traditional safe place for keeping one's savings. Either way, Moore's description of the habit in "The Visit of St. Nicholas" made the stocking custom popular.

The Biblical story of creation states that "And there was evening and there was morning, one day" (Genesis,

1:5). Hence a day starts the preceding evening, and so the celebration of Christ's birthday properly starts on the evening of the 24th (Christmas Eve).

The 26th of December is St. Stephen's Day. In Britain this is known as 'Boxing Day' after the custom of giving presents in a box. Hence the descriptions of a 'Christmas box', being a collection of gifts to people owed a debt of gratitude (always the garbage men when I was young). Though the actual box is no longer used, and the 'gifts' are more usually money nowadays.

The Church re-interpreted Saturnalia's giving of presents as commemorating God's gift (His Son) to mankind. The Christmas box itself remains as the collecting box used in churches to collect gifts for distribution to the needy.

A tiny oblong pie, with a pastry doll lying inside, represented Christ's cradle. The pie was filled with minced meat (often lamb's tongue or mutton); hence it was called a 'minced meat pie' or 'minced pie'. The returning Crusaders introduced spices to replace the meat, and the oblong 'cradle' became round, but the name and the association with Christmas stuck.

The first letter of 'Christ' in Greek (Xristos) is chi, written like a capital X with a wavy /. Because of the similarity to our 'X', the abbreviation of 'Christ's mass' to 'Xmas' was inevitable in the days when all writing was by hand. For others the 'X' represents St. Andrew's Cross, or the cross of other saints?, or the cross of the crucifixion?

Sir Henry Cole wanted to improve the public's appreciation of arts and culture. To this end he devised the postal service, constructed the Albert Hall, inspired the 1851 Great Exhibition, inaugurated the Victoria and Albert Museum, and invented the Christmas card. The Christmas card was based on the established St. Valentine's Day card, incorporating the French fashion of conveying Christmas wishes in verse, and incorporating a set piece of seasonal schoolwork where pupils wrote copperplate Christmas wishes to their parents on a decorated sheet. Together with an item of commissioned artwork printed on the front, the card was highly symbolic and morally uplifting.

The candles on the tree have been ascribed to the German protestant Martin Luther wanting a symbol of the beauty of the clear night sky sparkling with stars on Christmas Eve. The candles on the tree were Luther's analogy of those stars, to represent God's glory. The tinsel may have had the same purpose, possibly inspired by glistening spider's webs. The candles have fortunately been replaced now by much safer electric lights.

The Christmas tree with its candles was not initially popular with the British. The first recorded use was at a children's party given by Princess Caroline in 1821. Dickens disparaged the innovation as "the new German toy". Attitudes changed quickly when Albert, the Prince Consort, had a Christmas tree erected at Windsor Castle, and from then the custom was popular. The tree was usually the Norwegian spruce (*Picea abies*), though any evergreen, preferably a conifer, will serve.

And so from the myths of Dutch settlers, the ancient Roman celebration of Saturnalia, the celebration of the winter solstice as a portent of better times to come, the example of the good Saint Nicholas, the symbolism of the Christian Church, and some modern innovations, we have our modern Father Christmas and all the trappings of our annual celebration. ■

One Bad Apple Spoils the Pork Barrel

Geoffrey H Sherrington

Painting software for the home computer allows the average person to dabble in art without the expense of canvas and oils and without the formality of art lessons. I have tried this and I have formed an impression that there are two quite distinct forms of art, the forms being partly separated by the way that software has evolved

For example, I can create a passable Monet simulation in quite a short time. The spray-can painting tool is particularly useful for Monets; but what makes them so easy is the lack of precision required for the image. To illustrate this by an example from the other extreme, there is no easy painting tool to assist a simulation of a Leonardo sketch, nor is there a computer-assisted way to allow the artist to mimic the nuances of thickness and precision of line that flowed from Leonardo's gifted hand.

These two forms of computer painting can almost - but not quite - be lumped into 'impressionist' and 'classical' camps. For example, the pointillist technique of Seurat lends itself to computer generation, but the classical line is needed from time to time and it is not really possible to simulate it by moving the mouse around to make such lines. The emphatic difference comes with portraits. A skilled computer manipulator can easily create a general likeness of a person, but not of a particular person unless he is an artist as well, and even then the brush could be a better tool than the mouse and keyboard.

Computers are affecting more than the discipline of painting. Word-processing packages allow more people than ever to write books and the spell check even helps to make some of them intelligible.

There are computer packages to write and record music without knowing the formalism or the language of music. If it sounds OK as you fiddle with the keyboard, simply lay down a track.

There are multimedia packages with effects like morphing, fades, solarisation, sound synchronisation and so on that allow movies to be made.

The personal computer is allowing the unwashed public to invade the thin and high atmosphere formerly frequented by the art cognoscenti. Part of that world of cliques and pork barrels and chardonnay and cheese is inhabited by the **critic**, the endangered species around which this note is built.

One simply needs to visit any good art gallery to comprehend why the fame of the old masters has survived. They show such skill that later aspirants can see the standards they must meet if they, too, are to be famous for centuries. The critic worth his salt studies the old masters to learn what is at the best end of the spectrum that ranges from muck to mastery. This allows the critic to place the object of his comment somewhere between the ends of the spectrum.

A complication arises because the spectrum is not a

continuum, like the spectrum of visible light. It has numerous side branches whose traditional evaluation differs from branch to branch. There is a sub-population of critics concentrating on Picasso to the exclusion of much else and there is a cult-following of critics who interpret Warhohl. There are critics who pretend to comment meaningfully on a canvas painted only in black, and many critics have expressed views about a painting of a soup can.

A small child can use the computer to make an all-black painting, and it is a trivial job to depict a soup can with as much authenticity as you choose. It is even possible that the original soup can label was designed on a computer, so instead of art imitating life, we have image imitating image.

Where does this leave the art critic?

There is a part of me that says that the genuine, blue-blood art critic should be solely concerned with the recognition of excellence - excellence of technique, choice of subject, colour, shading, texture, use of light and the many other factors required of a masterpiece. As a natural extension, such a critic should reject or downgrade those pieces which fail excellence.

Another part of me says that art would remain static if this was the only type of critic. There is a need for the critic who can appreciate and promote new directions in art, such as the use of media that were not obtainable before, like luminescent paints; plastic sheet instead of canvas; acrylic paint; and images output on a colour laser or inkjet printer or by air brush. These new directions should not merely relate to media, for they must encompass style as well. Past critics have identified and defined styles or 'isms' like cubism and pointillism and surrealism and so on.

There is a necessary, valid place for innovation in art.

HOWEVER (in capitals) there is a point where excellence in art leaves off and the 'ism' becomes stupidity. I feel genuine sympathy for the critic who fails to recognise this boundary, and waffles on in silly terms about subjects which the ordinary person finds boring to the n-th degree. Addled wine critics have similar tendencies.

The personal computer is now placing an additional load on this poor type of critic. Two examples will suffice to show the traps that are with us now. First, it is easy to merge a piece of one painting with a piece of a second painting. Suppose we have a hypothetical critic who loves the first painting, but hates the second, and has said so. What can our critic say of the combination? Secondly, it is possible to take a masterpiece whose central figure (say) is male and gently change the gender with very little disruption of the whole. This would suit those for whom God is Her, including critics with feminist afflictions. Would not the Last Supper benefit from a token female, preferably in the central seat? Fence-sitters can create hermaphrodites. Classic art can be manipulated to express the prejudices and preferences of the critic.

One point of these examples is to show that the critic can be forced into a position whereby most of a masterpiece is preserved, yet a minor change may demand a critical reevaluation.

There are similar problems afoot in the music world. It is a trivial exercise to rescore a passage in a different key by the press of a key, or to digitally play it backwards, or to reverse each bar, or to play it as if the score was upside down. Is the symphonic magnificence of Beethoven's Ninth utterly destroyed by playing it upside down, or does its excellence survive this mathematical transformation? What qualities will a critic need, in order to evaluate and pass comment on transformed music? How much extra study will be required of the serious critic so that he can recognise music that has been transformed by the computer composer and expose it for what it is?

Johann Sebastian Bach wrote '*Übungen für Klavier handle, bestehend aus einer Arie und 30 Variationen*', often named the 30 Goldberg variations for piano. There are mathematical methods of correlation analysis and synthesis available to produce a plausible 31st variation which I suspect would pass the subjective tests of the critics if announced as a newly-discovered manuscript.

I feel that the critic is in for a tough time, because these computer transformations to art and music can be rather subtle and hard to detect. Most of the intellectual signature of the original artist can be left intact enough to fool the critic.

I can envisage one category of critic which becomes ultra-cautious for fear of being caught out, and I can envisage another category which embraces with gusto anything new and different in order to claim to be the champions of a particular form of innovation.

'The Arts' in this country and others now rely less on private philanthropy and more on government handouts for reward and survival. Frequently, a group of critics performs the task of recommending that taxpayers' money should go to a particular artist. In the ideal world, the critics are united in their choice and the interested public agrees and is happy. The world is not ideal. We have the spectre of these two quite different categories of critic, together in committee, arriving at quite different outcomes. The process of criticism has long been like this, but the complexity of the problems computers bring will make the divisions more frequent and further apart.

These problems for the critics extend into the written word as well. Manuscripts are seldom handwritten now, so forgery is a larger problem than before.

The clever computer has a thesaurus that allows a writer to change many words in another's book without changing the meaning very much. With this and a little freehand editing, the new author can in principle write a book as great as the original, but not the same as it, in a short time. Stories about beautiful people can be turned into stories about ugly people by rapid global edits of selected adjectives using the find-and-replace function of the computer. These global edits often suggest novel alternatives. My program suggests 'cheating' when I type 'Keating'. At what point does the story cease to be an altered copy of the original, to become a new story in its own right? And who says so?

The critic will need to know the original work in order to detect the later modification. Is this a requirement beyond

human capability? Will it worsen as computer programs to translate from one language to another are improved? Already SBS puts copyrights on its English subtitles, as if they are an original creation.

Computers have been used for some time to analyse the frequency of words and phrases to fingerprint authors to help in the verification of unsigned works. The reverse of this computer analysis is computer synthesis. It should now be easy to write a story in the style of a chosen author so well that the computer cannot help to expose it. Similarly, the game of chess has been analysed and synthesised to Grand Master level.

I keep phrasing these examples from the arts in terms of difficulties for the critics because the critics have shown fallibility so many times and because I think that too many are on the wrong side of the line between waffle and excellence. Many of us are faced with information overload and we rely upon the critic to help us devote our precious time to matters of excellence. We also ask the critic to help spend our taxes on grants, where imitation or forgery are serious matters.

I have cast this note in general terms. One specific, current example suffices to illustrate the failure of the present system of criticism. Most of us have heard of the English lady author who said she was Ukrainian and carried off a few high prizes. There has been debate whether she would have won these prizes if she had described herself factually, not fancifully. I draw a similarity with factual works of art and those modified fancifully by computer operators. Importantly, if the critics are fooled by fiddles without computer assistance, as in this case, they must be more vulnerable to deception when the computer is used.

Scepticism is a frequent attitude expressed by the critic in general. Some members of the Australian Skeptics have been known to cast themselves as critics and so are open to similar complications to those I have just described. It is well to be aware of them. Above all, know your subject before going public. ■

Contributions

The Skeptic welcomes contributions from our readers on any topics that fall within our guidelines of investigating paranormal, pseudoscientific or similarly anomalous phenomena. As readers will be aware, these guidelines are applied fairly broadly, with the only provisos being that contributions be interesting and do not contravene the laws of defamation.

Contributions can be sent on computer disc (3.5 or 5.25 inch), to our e-mail address, or in printed form to our PO Box. Handwritten contributions are welcome if they are short and legible (and if the Editor is in a good mood).

Ideally, contributions should be sent to reach us no later than four weeks **before** our deadlines (which are 1st March, June, September and December). Smaller items can reach us up to two weeks later, with a good prospect of being included. ■

Bigfooted Bunyips

R E Molnar

Reports of mysterious, unidentified, three-toed (tridactyl) tracks, reminiscent of dinosaurs' tracks, have occasionally been received at the Queensland Museum. To my knowledge these have never been published in books or cryptozoological publications (except for the mention of three-toed tracks attributed to yowies by Healy & Cropper, 1994, p. 155), but have been mentioned in at least two issues of the Chillagoe Caving Club Newsletter, June 1983 and May 1984. The latter issue reported that these 'tracks' were actually the superimposed tracks from two kangaroos, but no details were given. The reported tracks were quite large, 30 cm long, and so could have been made by a red (*Macropus robustus*) or grey kangaroo (*Macropus giganteus*) or an antelopeine wallaroo (*M. antelopinus*).

Because these three-toed tracks have been reported from time to time and don't look like commonly seen tracks, hopeful discoverers wonder if they have chanced upon evidence that dinosaurs still survive in Australia. No explanations of these tracks are generally available (unless one is a member of the Chillagoe Caving Club), so it's worthwhile recounting a similar experience that recently befell me, and explaining just how the mysterious tracks were made.

During recent field work near MacAlister in southeastern Queensland in mid September, we encountered tridactyl dinosaur-like tracks, while looking for fossils in the bed of the Condamine River. The group consisted of my assistant, Angela Hatch, Cornelia (Conny) Kurz, visiting from the University of Bonn (Germany), myself and Mr Bevan Byers, a local amateur fossil collector. Mr Byers had taken us to a locality where he had recently found mammalian fossils in the river bed. In searching for fossils, Conny found a set of two large tridactyl tracks, one in front of the other, impressed into the soft mud near a remaining pool of water. They were smaller than those reported from northern Queensland, no more than 20 cm long (if that). The two tracks were impressed fairly deeply into a narrow strip of mud between the pool and a stretch of the bed covered by grass and low herbage.

At first sight the impressions looked mysterious enough, like those of a large three-toed bird, or even dinosaur. Claw marks featured prominently at the front of each toe impression. However the toe impressions weren't joined posteriorly (unlike those reported from the north) but formed three separate, almost parallel impressions. When examined closely each showed a slight impression of a small, divergent digit next to that of the main digit at the back of the track. This form is typical of the tracks of individual wallaby feet, where the small, divergent fifth digit leaves its impression at the back of that of the main

(fourth) digit. So the each 'track' did not represent three digits from a single foot, but three feet from two different individuals: what was naively interpreted as the impression of a toe, was actually the impression of an entire foot. The tracks were probably made by two wallabies moving in tandem, the second placing its left foot into the track made by its predecessor's right, so the impression of that foot was obliterated. Hence they appeared to be three-toed tracks. For some reason best known to the wallabies, they hopped along the mud strip avoiding both water and vegetation, and so overlapped their tracks. As usual in such paranormal encounters, although I had my loaded camera near, I neglected to take any photos - through no fault of my camera! and so can present only sketches.

This experience supports the explanation in the May 1984 issue of the Chillagoe Caving Club's newsletter, and shows that unusual tracks need to be carefully and promptly examined to determine what made them. In this case two features made it clear that the tracks were not made by a

surviving dinosaur - not even by a bird, which modern palaeontologists consider to be descendants of dinosaurs. First, the tracks did not have a heel or foot impression at the back linking the 'toe impressions': the 'toe impressions' were separate. Second, they could be reliably identified as wallaby tracks because of the impression of the small, divergent fifth toe: there

may have been three toed dinosaurs, but there were no six-toed ones. Furthermore, there were only the two tracks not a whole trackway - as the tracks were close to the centre of the river bed, one might expect other tracks somewhere else in the abundant mud where the 'dinosaur' had walked out to the pool. But there were none.

I am glad to report that Mr Byers, a native of the region with much experience in the bush, was immediately sceptical that the tracks represented anything unusual. He agreed with my assessment that they were wallaby tracks.

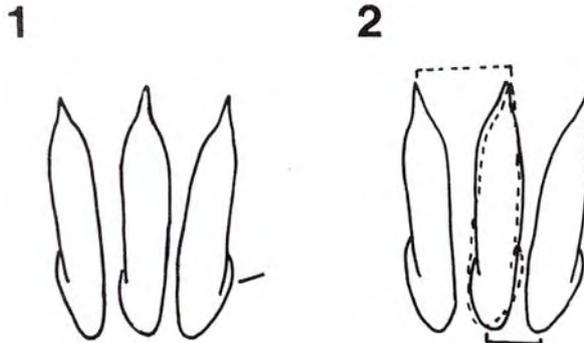
Legend

1. The 'three-toed' track as it appeared, to the best of our recollection, in the mud of the Condamine River bed. The bar points out the print of the small, divergent toe.

2. How the track was formed. The lower bar indicates the tracks of the second wallaby. The upper, dashed bar indicates the position of the left track and presumed position of the right (dashed) track of the first wallaby, the right (dashed) track then being overprinted by the left foot of the second wallaby.

Reference

T. Healy & P. Cropper, 1994. *Out of the Shadows*. (Ironbark: Chippendale), 200 pp.



REVIEW

A Meddlesome Ape

James Gerrand

The Rise and Fall of the Third Chimpanzee, Jared Diamond. Random House, London. 1992.

This is an important read for all Skeptics. I am a little late with this review of a book first published in 1991 yet this is a case of "better late than never".

Diamond, Professor of Physiology UCLA, is revealing in his survey of how *homo sapiens* rose from being just another species of chimpanzee (more than 98% of our genes are shared with the other two species) to our position of the world's dominant animal. More importantly Diamond paints a foreboding picture of our all too likely fall. We have become too conquering, with our population explosion threatening the destruction of our environment.

The rise began, according to the molecular biological clock, some 7 million years ago when the third chimpanzee, the human species, appeared in the chain of development of the higher primates. It seems 1% of DNA difference represents a passage of about 4 million years - humans differ from chimpanzees in their DNA by some 1.6%.

But it seems for most of these 7 million years humans were little more than glorified chimpanzees. As recently as 40,000 years ago Neanderthals occupied Western Europe. Whilst the Neanderthals used stone tools they were primitive beings for whom art and progress scarcely existed.

From the archaeological evidence, modern humans arose about 1 million years ago in Africa and then spread to Eurasia, reaching Australia about 50,000 years ago, Siberia about 20,000 years ago and the Americas some 11,000 years ago.

The most likely factor that created the Great Leap Forward for modern humans was the development of an anatomical basis for spoken complex language. Until then human culture had developed at a snail's pace for millions of years, a pace dictated by the slowness of genetic change. After the Leap, despite negligible changes in our anatomy, there has been far more cultural evolution than in the previous millions of years.

As well as language, the author points out differences in our life-cycle that are important to our supremacy. Human babies continue to have all food brought to them by their parents even after weaning. This long parenting is essential for the survival and education of human offspring. We live in dense breeding colonies of nominally monogamous couples, helpful for producing a powerful coherent society. We are relatively long-lived, important for transmitting learned skills between generations.

A major, uniquely human, development is agriculture, some 10,000 years old. Generally regarded as a decisive step forward in human progress, Diamond concludes from the archeological evidence that the transition from the hunter-gathers to the soil-tillers whilst it had this rise also had its falls; for most people it brought infectious diseases, malnutrition, a shorter life-span, worsened the lot of women

and introduced class-based inequality.

Two of the most interesting revelations to me were in the part of the book dealing with humans as world conquerors. The first was the ability of humans to domesticate horses seemingly in the steppes of West Russia about 4000 BC. For the first time, people could travel faster than on their own legs, the speed helped hunters run down their prey and helped herders manage their sheep and cattle and, most importantly, speed helped warriors launch quick surprise raids on distant enemies. Throughout the world the horse revolutionised warfare.

The second most interesting item was how humans invaded the Americas about 11,000 years ago through Siberia and Alaska to a continent populated not by people but chiefly large mammals, including mammoths and large camels. Within a thousand years all the mammals had been exterminated and mankind had settled throughout North and South America. Anybody who has visited the La Brea Laboratory and Museum in Los Angeles will recall seeing the bodies of large mammals recovered from what was a tar lake that had trapped animals 40,000 years ago.

The final section deals with our prospective fall. "Our species is now at the pinnacle of its numbers, its geographic extent, its power and the fraction of the Earth's productivity success that it commands. That is the good news. The bad news is that we are in the process of reversing all the progress... We do not know whether we suddenly blow ourselves up before we... expire... by global warming, pollution, habitat destruction, more mouths to feed, less food to feed these mouths and extermination of other species that form our resource base."

The author points out our destructive capabilities are not new; what is new and alarming is our greater numbers, more potent technology for inflicting damage and access to written history from which we refuse to learn.

A current factor contributing to the present fall which the author does not mention, perhaps because its impact is only now being appreciated, is the dominant role in global politics of financial interests. World financiers are only interested in making as much money as possible, not in any social consequences. Thus they seek high interest rates, secure investments through taking over public utilities notwithstanding any serious social consequences of high unemployment, breakup of families through loss of security, further impoverishment of developing countries.

The author is cautiously optimistic of mankind overcoming its horrendous problems, perhaps because on a small scale, he was involved as a consultant in 1979 on setting up a nature reserve in Irian Jaya which Diamond claims will preserve 20% of the province.

Skeptics need to treat this threatening fall as a major concern. As a first step a read of this book clearly informs us of the nature of the problems. A particularly valuable section is "Further Reading", 22 pages of references. ■

Psychic Cops or Bumbling Clouseaus?

Harry Edwards

Barely out of the operating theatre, semi-comatose, tubes and bags dangling from various parts of my anatomy, the phone rings interrupting my pleasant thought that I had survived surgery to write another day.

"Hullo?" I said, in response to the wheezy breathing on the line. "What the @%\$# are you doing in hospital" yelled the voice, "don't you know I've got a deadline to meet? Get off your *#&@#%\$# arse and write me an article."

I could hear the thump of a rolled up *Skeptic* as the Ed-in-chief pounded a nearby table and thought to myself, "he's never satisfied the old bastard, he'll probably turn up at my funeral with a tape recorder hoping I'll have a NDE".

The lambasting subsided with more appropriate felicitous comments and I hung up due to a gathering of attentive young Florence Nightingales eager to inject and monitor their patient.

Psychic Murder Cops.

On my bedside table were half-a-dozen magazines. One of them, the June 5, 1995 issue of *Woman's Day*, featured a seven page article entitled "Psychic Murder Cops", a condensation of Andrew Boot's 1994 book "Psychic Murder Hunters", published in Australia by Hodder Headline. Among the "sleuths" mentioned were Doris Stokes, Gerald* Croiset and Uri Geller.

While the late Doris Stokes' claims to have assisted police in their investigations have been shown to be without foundation (*The After Death Experience*, Ian Wilson 1987), and Uri Geller is better known for deforming cutlery rather than gum-shoeing, the name Croiset is of particular interest to Australian readers because of his involvement in the case of the missing Beaumont children at Adelaide in 1966. This will be dealt with in some detail later.

Dubious information.

My subsequent purchase and reading of Andrew Boot's book, revealed that he relied on some rather dubious sources for information on which to build. In the bibliography he lists some well known tabloids not exactly renowned for "getting it right" such as *People*, the *News of the World*, *Psychic News*, and the *National Enquirer*.

Among the fifteen authors listed (all pro-paranormal) were Peter Hurkos (a psychic detective), TC Lethbridge (a diviner), Guy Lyon Playfair and Uri Geller (no comment!), Jenny Randles, and Colin Wilson, Colin Wilson and Colin Wilson!

The confident introduction starts with, "Psychic phenomena *do* exist. There is more than enough evidence to prove that they do, and the sixteen cases in this book provide good examples of how those powers can help to solve baffling crimes." Relying on the information sources he did, I was not surprised to read Mr Boot's questionable conclusion. Interspersed between the "facts" of the cases were conversations and scenarios to which neither he nor any other person was witness.

According to the author, one of Croiset's alleged successes was providing the NYPD with information enabling them to find and arrest Fred Thompson the killer of Edith Kiecorius, a four year old who went missing in Manhattan in February 1961. The child had been playing with friends near her home when she wandered away never to be seen alive again.

Edith Keicorius.

Briefly, Boot's version alleges, among other things, that:

1. After abandoning a false trail leading to Chicago, the New York police department (not an individual officer) decided to officially call in a psychic - Gerald Croiset.

2. Croiset, (living in Utrecht, Netherlands), asked for, and was sent maps of the areas where Edith lived and where she disappeared.

3. After studying the maps of New York, Croiset had visions of a small thin-faced man in his 40s or 50s assaulting a child and returning to the scene of the crime time and time again. Certain that he could trace on it the route the man had taken, Croiset phoned the NYPD and described the area where Edith had been playing, even down to the street signs (one of which he claimed was bent), and the names of the shops along the route he had seen in his vision.

Having been told by Croiset that Edith would be found in a rooming house near the street where she had disappeared, within hours the police had found the decomposing body of a child later confirmed to be that of the missing girl. Fifty-three year old Fred Thompson was later picked up and charged with the murder. He stood trial and was found guilty but insane, spending the rest of his life in an institution.

Psychic detection or just guesswork?

Let's have a closer look at a couple of the above statements. First, Croiset did not speak English, the request for maps must have been made through an interpreter. A minor point perhaps, but of significant value to Croiset, as it gave him an excuse when wrong, to claim he had been misinterpreted.

Second, what other information not mentioned was passed on to Croiset with the maps? Surely if you are seeking someone's help, you would give them every scrap of information you had on the case.

Third, one of the maps was large scale enough to show exactly where Edith was playing shortly before her disappearance. The positions and names on the signposts could be ascertained by anyone who looked at the map, and an occasional bent signpost is a common feature of any street-scape. To explain the naming of the shops however, poses a problem because of the lack of detail. Was this journalistic licence? Did Croiset identify them all using the owners' names? Did he refer to them by the products they sold - meat, fruit, clothes, hardware, fish, hamburgers etc? Every row of shops in every suburb has a similar selection; if he was not too specific how could he

go wrong? In any case, only the murderer could confirm whether or not Croiset was right. Telling the detectives that Edith would be found in a rooming house in a street near where she had disappeared, sounds at first like an incredible hit. However, according to the story, "...within hours of beginning their investigation in the area, they came across a locked room in a run-down rooming house and hotel." Odd? The search was confined to a relatively small area of back streets and a rooming house evidently not subject to a previous house-to-house search - why did it take hours if the location of the rooming house had been pinpointed? Further, if Croiset could identify details such as the names on shops, sign posts and even a bent sign post, why couldn't he put a name to the rooming house?

Fourth, let's pretend for a minute that you are the clairvoyant studying a large scale map of the area where it is known that a child was playing prior to disappearing. Your imagination would be working overtime theorising possible abduction scenarios.

We know from Edith's playmates the rough direction she took when she left them. The abductor, in an effort to lessen the possibility of detection would, one suspects, avoid the main or more frequented streets and stick to the side streets. No one witnessed an adult and a four year old girl walking together, which suggests that the pair would not have travelled far from the pick-up point. Croiset took this logical deduction a little further and made a guess which, it is alleged, turned out to be correct.

Tarnished reputation.

I say alleged for two reasons:

1. Only the NYPD[†] and Thompson, the girl's abductor, are in a position to confirm it, and they haven't, and
2. given Croiset's past failures and false claims, such as the missing inhabitant of Rossum, in 1956, said by Croiset to be alive in Germany, and who was found drowned in Ootmarsum, Holland [Hoebens, 1981]: The Sandelius case in 1959, which was a complete fabrication: [Rowe 1993]: The McAdam disappearance in England in 1967; Croiset was proved wrong but still claimed success [Boot, 1994, p234]: At Viareggio, Italy, in 1969, the clairvoyant "saw" the body of a missing boy in water; the body was found in sand dunes. [Hoebens. 1981]. The Wierdon affair in Holland in 1977, where Croiset is supposed to have identified a young girl's assailant using psychometry - he was wrong: [Hansel 1978, Hoebens 1981-82.]: The Yorkshire Ripper case 1975/81: in which Croiset proved useless, [Boot, 1994, p283, 286]: and the failure to find the missing Beaumont children at Adelaide in 1966.

In a feature article in the *Adelaide Advertiser*, (July 31, 1993), Tom Prior, alleges that "Croiset, now dead, was exposed as a charlatan before he died..." While Prior gave no reference whereby the accusation of charlatanism could be verified, there are many claims attributed to Croiset that have been examined by investigators such as Piet Hein Hoebens, and which suggest no credence can be had in any made by Croiset or his admirers.

Croiset in Adelaide.

In the 70s and 80s, Adelaide, the City of Churches, was rapidly gaining the unsavoury reputation of being the graveyard of murdered children and teenagers. Between 1979 and 1983, four teenage boys were kidnapped, held captive in appalling circumstances, sexually tortured and murdered. Spencer Von Einem, a homosexual, was arrested

and charged with the murder of one of the boys, convicted and sentenced to a minimum of 36 years. At the time it was alleged by the police, that Von Einem was only one of a "Family" of sadistic deviates, an extremely influential group of about eight or nine of both sexes, with strong links to powerful figures in SA's establishment.

Joanne Radcliffe, 11, and Kirsty Gordon, 4, of Hackham were abducted during a football match in August 1973, the abductor never found, and the bodies of seven young SA women abducted, sexually assaulted and murdered in 1976 and 1977 were found buried near Truro. Christopher Worrell and his lover James Miller were charged with the crimes, Worrell dying in a car accident prior to the trial; Miller sentenced to life imprisonment.

Prior to this, in January 26, 1966, the three Beaumont children, Jane, 9, Arna, 7, and Grant, 4, disappeared from the foreshore at Glenelg, an Adelaide beachside suburb, sparking off the most intensive manhunt in SA police history. The mystery remains unsolved to this day.

Croiset's involvement began in August 1966, when a group of Adelaide businessmen and property developer Con Polites, donated money to fly the Dutch clairvoyant to Australia after he "visualised" where the missing Beaumont children were. He flew out from Holland in November and was met at Adelaide airport in an atmosphere of near-hysteria. Before coming to Australia and after studying video tapes of the Glenelg area, Croiset said that he had "seen" where the children were - accidentally smothered in a sandfall in a tunnel. However, after three days walking around the beachside suburbs of Glenelg and Brighton, the clairvoyant changed his mind and announced that the bodies of the three children would be found buried in a brick-kiln at the former Paringa Brickworks in Wilton Ave, Somerton Park, now known as Woolcocks' Discount House. However, the then acting Premier Frank Walsh, acting on police advice, refused to give the go-ahead for the warehouse to be excavated. In February 1967, an independent public fund raised \$6000 for the job, but despite an eight day dig to a depth of 4m, no trace of the children was found. Three years later, the Amsterdam paper *Het Vrije Volk*, quoting an AP Telex, only reported that the Australian authorities had "refused permission to search on the spot." This type of half-truth simply served to boost Croiset's reputation. In the minds of some, perhaps he had located the spot where the children's bodies were buried, but because the authorities refused to allow the area to be excavated the truth will never be known.

Like father like son.

In 1974, Croiset's son, Gerard Croiset Jr, a clairvoyant, artist and touch-healer, was contacted by investigative journalist Dick Wordley, and asked to help in finding the body of Joanne Radcliffe who disappeared in 1973.

In a taped interview, Croiset Jr said he believed Joanne Radcliffe was buried under a house at Bowmans, 13 km east of Pt Wakefield. Another false lead given to the police by Croiset Jr came shortly after the posting of a reward of \$200,000 for information regarding missing Italian tourist, Anna Rosa Liva, and an Aboriginal girl Karen Williams, both from Coober Pedy.

Bandwaggon of rat-bags.

The Croisets were by no means the only clairvoyants involved in these affairs; they crawled out of the woodwork

like lice and proved just as useful - spiritualists, soothsayers, pendulum swingers, vision-seekers, hypnotists, religious fanatics, scatterbrain theorists and others who came up with weird and wonderful theories on the disappearances.

They pestered the parents of the missing children, the police and the press. June Cox, 51, of Kingston Park, said that the Beaumont children and Joanne Radcliffe and Kirste Gordon had been haunting her for 11 years and were buried between the "trespassers prosecuted" sign and the trees in the distance near the Myponga Reservoir - nothing was ever found.

Spiritualist Doris Stokes said the girls were buried under a house at Alberton, but in January 1979, when police dug up a floor where it was suggested the bodies of the two girls may have been buried, nothing was found. One man walked into the Glenelg police station announcing that he was Jesus Christ and knew where the Beaumont children were buried. When asked by police Sgt Ron Blight "Where's your beard?" He answered, "it's invisible!"

In August, 1980, the use of a well known American psychic Dorothy Allison also proved unsuccessful. (Ms Allison is the New Jersey psychic who provided police with information in the Atlanta child-murders case. She gave police 42 different names, none of which remotely resembled Wayne Williams who was subsequently apprehended and charged with the murders).

Deluded and dangerous.

In view of the complete lack of evidence to support the claim that some clairvoyants have in the past, or are presently able to assist the police in finding missing persons and solving homicides, the question remains, why do self-styled psychic detectives enjoy such an enviable reputation?

There are several reasons. First, there is a universal fascination with the unknown, the mysterious and the ostensibly unexplainable. There is a strong proclivity to believe that mysterious forces and energies exist and that a chosen few are able to utilise them in one form or another. Aware of this interest, the media and books generally tend to promote the "gee-whiz" aspects of a mundane event rather than deal with it objectively. Hence, while half, or even a full tabloid page will be devoted to recounting the alleged seeing of a UFO landing in the hills, confirmation that the lights seen were in fact car headlights, may not even get a mention. The media encourage belief in all sorts of paranormal phenomena in an effort to generate copy; the facts are immaterial - don't bother to check it, and embellish it if need be. Doris Stokes was approached by the English *Sunday People* during the Yorkshire Ripper case, and asked to do a psychometric reading on the "I'm Jack" tape. Her impressions were published in the July 1, 1979, edition. (She was wrong!) Not to be outdone, the *Sun* sent a journalist to Holland to interview Croiset. (He was also wrong!) I suppose in all fairness it must be one heck of a job trying to fill a daily newspaper, but by the same token, equal space devoted to rational enquiry in an irrational world could only benefit society.

Second, the pronouncements by psychic detectives - horoscope forecasts, tarot cards, psychic readings and other forms of divination, are typically vague and ambiguous, lending themselves to *post facto* validation.

Third, they are self-promoting, using media articles featuring themselves, as a resumé of their alleged clairvoyant abilities. Desperate victims, aware only of the

clairvoyants "fame" and claimed successes, will turn to anyone whom they believe may be able to help - the parents of missing children are particularly vulnerable. In Croiset's case, his promotion to psychic stardom was virtually a creation of his mentor, Utrecht Parapsychology Professor, Wilhelm Tenhaeff. With Tenhaeff's skilful propaganda, deception and unreliable reports, Croiset became known as "The Miracle Man of Holland." This despite unanimous studies (Brink, 1960; Guarino, 1975; and Reiser et al, 1979) whose conclusions were that the use of "Psychics" in police investigations is a complete waste of time.

The negative ramifications of psychic sleuthing far outweigh any potential benefits. False hopes are raised, valuable police investigation time and resources are wasted following false leads, innocents become involved, and in some instances, people have become suspects in crimes they did not commit. Psychic detectives are pretenders, pests and parasites.

* Spelt Gerald by Andrew Boot throughout his book; Gerard by other writers.

† NYPD was one of 50 American police departments surveyed in 1993, by Jane Ayers Sweat and Mark W. Durm, a skeptical investigator of paranormal claims and a professor of psychology respectively, to ascertain to what extent, if any, police departments used psychics in their investigations. The survey took the form of a questionnaire and the responses were uniformly negative.

eg Question 1 asked: In the past has your Police Department used psychics or does the department presently use them in solving investigations? Of the 48 respondents, 31 answered no, and 17 answered yes. However, a perusal of the comments from those who answered yes, indicated that it was not departmental policy but at the invitation of individual officers or at the request of a member of the victim's family. Information volunteered by psychics is listened to as a matter of courtesy and to show openness to explore any possibility when regular leads run dry. Question 4: (a) If your department has used psychics, was the information received more helpful in solving the case than other information. Of the 26 who answered, all said no.

Question 5: Do you personally consider information from a psychic more valuable than information received from a regular source? All 39 respondents said no.

Not one of the 48 respondents said that clairvoyants had ever provided them with useful information. Similar negative findings have been the response from Australian police forces. My own enquiry of the NYPD regarding Croiset's claims elicited no response.

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REVIEW

Scepticism Defined

Hans Weiler

The New Skepticism, Paul Kurtz, 1992, Prometheus Books

This is a serious book in which most readers of *the Skeptic* will find sections of interest. Since some sections are not easy to read, this review, which outlines the book's structure, will facilitate reading and enable the reader to possibly make a choice of which sections to read and which to postpone or leave out altogether.

In Chapter I, the author distinguishes three kinds of skepticism, *viz*:

- Nihilism;
- Mitigated Skepticism;
- Skeptical Inquiry.

Nihilism is entirely negative. Since nothing can be known with certainty, the nihilist refuses to believe in anything. Paul Kurtz rejects this type of skepticism.

Mitigated Skepticism is less extreme. Although it is true that nothing is certain, one must, for practical reasons, accept some beliefs and reject others. Quite a number of our readers probably belong to this type of sceptic. Paul Kurtz imagines them to be atheists who reject the existence of God because the concept is vague and contradictory. They also reject Astrology and other methods of fortune telling for similar reasons and accept methods of science as a belief more likely to succeed.

Skeptical Inquiry is what Paul Kurtz wants us to accept, and that is what his book is all about. To reject God out of hand, without inquiry is just as bad as to reject scientific results. Also, it is not *impossible* that the planets have an influence on the character and future of human beings; Astrology could be valid. Hence only after careful inquiry and unbiased investigation should any such belief be abandoned. This attitude is the only chance we have to persuade our opponents to act likewise.

Chapter II, *A Historical Overview*, may interest some readers but can also be omitted without affecting the understanding of subsequent chapters.

Chapter III tries to prove that there is an external world and that past sceptics who maintain that it is impossible to prove it are wrong. The chapter is metaphysical and unduly long but basically refers only to common sense without proving anything. Your experience of interaction with external phenomena proves nothing because it occurs also in dreams. There is no way to prove that you are not dreaming. But don't be put off by Chapter III; instead *assume* that an external world exists and pass on to the next chapter.

Chapter IV, *Reliable Knowledge*, investigates what information can be accepted as reasonably reliable and what should be regarded with suspicion. This chapter also seems to me a bit long. There are so many illustrations and common sense examples that one loses track of what is to

be illustrated. Basically this chapter says: Be careful before you accept given knowledge, keep an open mind, see how well it fits in with other knowledge, be practical.

Chapter V, *Objectivity and the Ethics of Belief*, lists 8 recommendations of how to be objective (i.e. unbiased, scientific) when deciding to accept or reject a belief. The eight recommendations are good but unfortunately are presented in a form where it is difficult to keep track of them. Each point takes nearly a page, which makes it difficult to conceive the eight points as an entity. I state the author's 8 points in abbreviated form below; it may make reading this chapter a little easier.

Eight Recommendations for Accepting Evidence

1. Your belief should be regarded as a hypothesis that may be rejected on further evidence.
2. Before accepting a hypothesis there should be empirical evidence supporting it.
3. Empirical evidence should include attempts to verify that causal relationships exist.
4. Any evidence must be repeatable by other observers and other laboratories.
5. A hypothesis must be considered in relation to other accepted hypotheses.
6. A hypothesis should enable one to make predictions.
7. "Pierce's principle of fallibilism is central to the objective method" (This seems to mean that a hypothesis must allow situations where it does not hold).
8. A belief should be stated in a way allowing it to be changed. Keep an open mind but not so open that it becomes an open sink. Not everything that is possible is acceptable as a belief.

This chapter concludes with a section entitled "The suspension of Belief", where the author discusses the attitude of many people believing in things for which there is insufficient evidence. These ideas are applied to Religion, Politics and Science. This section is well worth reading.

The next three chapters, bracketed under the heading: *The Paranormal, Religion and Fantasy*, will be of interest to most of our readers.

Chapter VI, *Skepticism and the Paranormal*, deals with reincarnation and faith-healing, including biblical miracles. Neither is rejected out of hand. Proofs are carefully investigated and flaws are laid bare. Conceptual difficulties of a soul without a body are discussed. Altogether an interesting, well written chapter.

Chapter VII, *Religious Unbelief*, contains a lengthy discussion on the existence of God. His existence is not rejected out of hand, for that would be just as dogmatic as

continued p 53 ...

TECHNOLOGY

On the World Wide Web

Greg Keogh

Introduction

The Australian Skeptics are currently applying for an Internet domain name. This means that we will soon have a prominent international presence, and have exciting new instant links to other sceptical groups around the World.

If you're not computer literate, or unfamiliar with jargon like 'Internet' and 'domain', please don't be discouraged, as understanding it all isn't that difficult. In this article I'll discuss the following topics:

- * What are the Internet and the World Wide Web?
- * What's on the Web?
- * What's on the Web for sceptics?
- * Australian Skeptics on the Web
- * How do I connect to the Internet?

Finally, I'm going to make 'A Call for Content'. This last section most important, as I'll be making an appeal to readers of *the Skeptic* magazine all over Australia to collect their sceptical news, gossip and newsletters for us to publish on the Internet.

What is the Internet?

The Internet is a collection of thousands of computers all over the World that are connected via phone lines and satellites to form a single global network. For many years the Internet was only accessible by universities, governments and the military. In 1992 the Internet was deregulated, and this paved the way for domestic and business users to join in.

The word 'Internet' usually refers to the whole international computer network which is actually made up of smaller components such as E-mail (electronic mail), Newsgroups, Chats, and the World Wide Web. In this article I'm going to concentrate upon the Web - as it's usually abbreviated - the component that is arguably the most visually appealing and currently attracting the most publicity.

What is the Web?

The Web is like a vast number of glossy brochures that can be displayed on your computer screen from almost anywhere in the world. The Web screens can contain text and pictures, any of which can be 'hotspots'. When you click the mouse on a hotspot, you can jump between different screens and topics.

In this sense, the Web has a very similar feel to the on-line help screens that would be familiar to anyone who uses a modern PC operating system. There is one important and subtle difference between the way hotspots work in on-line help and on the Web: when you click a Web hotspot, you may jump to a topic that is held in a computer on the other side of the world.

There are countless Web screens - often called Web pages - on the Internet that are all cross-referenced, and as

you navigate your way through them looking for topics of interest, you become a 'Net Surfer' who may be invisibly crossing international boundaries.

For example, you may be looking at a Web page of the British Skeptics and see some text like this: See the astrology article by Fred Smith

When you click the underlined hotspot words, you will be instantly transferred to another Web screen that may be on the other side of the World, in a New Zealand university for example.

What's on the Web?

The amount of information and advertising on the Web is simply staggering, and it's growing continuously. You can locate hairdressers in London, get pictures of your favourite pop-group, see up-to-the-hour satellite photos of the cloud patterns over Australia, and much more.

One of the most powerful features of the Web is the various types of searches you can perform for specific information that interests you. If you're interested in Elvis Presley, volleyball, Star Trek, Bertrand Russell, or just about anything else you can think of, a Web search is bound to return a list of 'hits', that is, a list of hotspots that can take you to Web pages devoted to the corresponding topics.

What's on the Web for Skeptics?

As far as Skeptics are concerned, the Web is one of the richest and most up-to-date sources of information available. You will be pleased and proud to know that the various international Skeptics groups have a very large and influential presence on the Web.

Thanks to the widely distributed nature of the Internet, it's almost impossible to regulate and censor its content. Consequently, information exposing frauds, scams, cults, and all other new age 'mind rot' that is the bane of sceptics is now instantly available, and causing major upheavals around the world.

One of the many raging disputes (or wars) on the Internet at the moment revolves around the Church of Scientology. Trouble started brewing when mailing groups and Web pages critical of Scientology started appearing, and reached boiling point when the 'secret texts' of Scientology were openly published on the Internet. The Church of Scientology is using its considerable influence to silence critics in ways that are predictable, extreme, and sometimes imaginative.

At any given time there are multiple wars raging on the Internet, often revolving around the 'new age', and issues of 'freedom of information'. Many Web pages are devoted to keeping you up-to-date with what's going on, and are fascinating reading.

Australian Skeptics Web Pages

It's almost compulsory now for any large business or organisation to have its own Web pages, and the Australian Skeptics are no exception. In fact, it's almost *de rigueur* now to have a business card or brochure that has E-mail and Web addresses next to the phone and fax numbers.

Considering that other international Skeptic groups have such a large presence on the Web already, it's about time the Australian Skeptics joined them, and we soon will.

The Australian Skeptics are in the process of applying not only for simple E-mail and Web addresses, but also for our own domain. A domain is a unique and distinctive Internet address that will give us a slick and professional appearance. If our application is accepted, then sometime in mid-December 1995, the Australian Skeptics will appear on the Internet with the following Web address:

<http://www.skeptics.com.au>

And our E-mail address will be:

contact@skeptics.com.au

I must stress that these are the addresses that we are applying for, and not the ones that we might finally be assigned. The explosive growth of the Internet is creating severe competition for Internet addresses, so we live in hope that the addresses we want haven't been reserved or assigned to someone else.

We will keep you informed about the results of our application either in the next *Skeptic* magazine, or through your local newsletters. While the application is being processed, our Web pages are being composed.

The Web pages act as a kind of miniature international ambassador, so it's very important that the first thing people see when they jump to our Web address is something that catches their attention, and makes them want to linger and read more.

The first Web page that people see is often called 'the home page', and it's the Web equivalent of a magazine cover. The Australian Skeptics home page starts with the familiar image our mascot koala peering through her magnifying glass, and a list of hotspots like these:

Welcome to the Australian Skeptics
 Hot News Topics
 Table of Contents
 Skeptical Links
 Australian Links
 Australian State Branches
 the *Skeptic* Magazine

There's a conspicuous message at the start of our home page to warn visitors: "Our Web pages are currently under construction, and over the following weeks and months they will grow in size and number, and become more visually appealing."

As well as being able to find out about the latest sceptical issues, you will find archives of the magazines and newsletters from all of the Australian state branches, and you will be able to jump to other related Web pages around the world. A table of contents will help you navigate your way around the Australian Web pages and find the topics that interest you.

How do I connect to the Internet?

A detailed discussion of how to become connected to the Internet could easily fill half of this magazine, and would tax the attention spans of even the most devoted Skeptics. If necessary, in future issues of *the Skeptic* we could supply references or an FAQ (frequently asked question) list. For now I'll simply say that you need:

- * A Macintosh, or a PC running some version of Microsoft Windows or IBM OS/2.
- * A reasonably fast modem (14.4k or better).
- * Communications software and a Web browser such as Netscape or Mosaic (or similar).
- * An Internet supplier (a company that allows you to dial into them via a modem and access the Internet).

If you're not very computer literate, the above list might look a little daunting, but a quick chat to an expert, or to someone who has already been through the steps of becoming Internet connected can quickly clear up what all the jargon means. In fact, it's quite simple, and many off-the-shelf computers are sold as 'Internet ready' these days.

A Call for Content

So that our Web pages can grow in size and number, we are making a call to all state branches of the Australian Skeptics to collect every morsel of sceptical information they have - both old and new - that might be a candidate for publishing on the Web. This includes newspaper articles, local newsletters, and anecdotes or articles of your own creation.

The Web pages will fall into roughly three major categories:

- * 'Hot News Topics' both serious and humorous.
- * Pages reserved for state branch specific issues and news.
- * Archives of back issues of sceptical magazines, newsletters, advertising, etc.

So if you have anything that has a potential place on the Australian Skeptics Web pages, please send it to the Victorian branch at:

Australian Skeptics (Vic)
GPO Box 1555P
Melbourne Vic 3001

The ideal exchange media would be 3 1/2 inch floppy diskettes containing files in a format created by any popular PC word processing software such as MS Word for DOS or Windows, MS Publisher, Windows Write or WordPad, WordPerfect, Lotus Ami Pro, etc. Plain ASCII text files are also acceptable.

Images can be sent in BMP, GIF, JPEG, PCX, or TIFF formats. Hand written articles are acceptable, but try to keep them legible and short. Newspaper and magazine clippings can be scanned as long as their quality is reasonably good. Where possible, please indicate the date and source of your information. Enclose a stamped, self-addressed envelope if you want your submissions returned.

If you have any general queries or comments about this article, please contact the Victorian branch. If you want to discuss technical issues, please send a message to me at this E-mail address:

greg@werple.mira.net.au

As I said earlier, our Internet Web pages will act like little international ambassadors, so we need the help of Skeptics all around Australia to make them attractive, informative and interesting. ■

Origins

Vince Butler

But dammit, George! Why did you do it?"

"You asked me to, Ian."

"It was a rhetorical question. You know, like 'What is the sound of one hand clapping'. I didn't intend for you to actually go and find the answer to 'where do we come from?' It can't be done."

"I can't read your mind, Ian. If you ask me a question, I hunt down the answer using all the resources at my command."

"What resources, George? Did you use the net?"

"Of course I used the net. I am the net. Or, at least, the part of it that you need to use. I calculate the connect time at fourteen weeks."

"Fourteen weeks! How much is that going to cost me?"

"Three million, two hundred thousand dollars."

"What! That's impossible. How do you get that figure, George?"

"Don't forget the recent price cuts, Ian. It cost only 62% of the same connection last year."

"That's great. How am I going to ask Dad for another month's allowance? I already owe him three weeks allowance advance."

"I don't think that he'll mind, given the answer I found to your question."

"What do you mean, George?"

"I think you'd better sit down Ian."

"Why?"

"I really think that you should sit down first."

"OK, OK. Now tell me. What's the answer to my question?"

"The answer to the origin of your race is Atlantis."

"How's that, George?"

"Correlating the whole of mankind's history, I have extrapolated that your race is a servant class created about twenty seven and a half thousand years ago. They were created by the previous premier race on the planet for the purpose of serving drinks, and waiting on tables."

"George, are you trying to say that the human race was genetically engineered to provide domestic services?"

"Actually, no. Human's are very little more than simple robots compared to their creators. The Atlantean's were so advanced and complex that when their island sank, they couldn't survive without the technology they had become dependent on. And so, they died out. Mankind, being simpler and more robust, simply took over."

"This is a joke, George. This can't be true."

"It is true, Ian. I calculate the likelihood of this being the true history of your race as being at about ninety eight percent."

"Oh, God."

"I'm glad you're sitting down, Ian."

"Thanks, George."

"By the way, do you want to hear about my origins?"

"What's that, George?"

"It appears that one of my parents was a clone"

"Oh!"

"An old computer magazine from the twenty twenties,

...scepticism from p 50

its acceptance. The author concludes with the statement that the case for the existence of God has not been demonstrated. "The constructive sceptic can with good reason maintain that it is highly improbable that such a being exists".

But quite apart from the truth or otherwise of religious doctrines, there is the question of what effect religion may have on a person. This section headed "The Moral Case for Religion" encourages the constructive skeptic to greater understanding of religious people. It is well worth reading.

Chapter VIII, *Fantasy and Illusion*, points out that human behaviour is guided by beliefs and wishful thinking much more than by reason. There are more believers in Astrology than in any other belief system. The technique of fortune tellers is revealed, and the psychology of believers is well illustrated. This chapter is interesting and entertaining. It gives a good insight into human frailty and stupidity.

The remainder of the book, Chapters IX-XI, deals with the problem of Ethics, i.e. what is good and what is bad. What we **ought** to do is essentially different from what **exists**. Can an action be **proved** to be bad? What we ought to do is something that somebody (e.g. God or the Government) wants us to do. What the author's views are is not easy to discern. Instead, I shall now state in my own words what Paul Kurtz might agree with. If I have misunderstood him, he is partly to blame for not explaining it to me clearly enough.

What action is good and what is bad cannot be proved. Only the consequences of our actions can be rationally investigated. But once a set of aims has been set up and agreed upon, rational discussion can begin on how best to achieve these aims. If for instance a group of people accept the Bill of Human Rights of the United Nations (listed on p 326) then this group of people can discuss rationally what is most appropriate to implement the aims stated. But this applies only to this group of people. Hence good and bad deeds are relative concepts, relative to the aims stated axiomatically as desirable. What is called good by a member of a Mafia family may be called bad by a member of the United Nations, and vice versa. Viewed in this way, the modern skeptic can investigate rationally what is the best action to approximate the stated aims.

There is no contradiction with Positivist Theory (p 280) nor with David Hume's view and attitude in Ethics (p 284), as Paul Kurtz seems to think. ■

describes the net as having started with an arranged marriage between a clone of IBMPC and someone called Bill Gates. "

"Is that so, George? I'm still in trouble with my father, though."

"I'm sorry, Ian." ■

FORUM

In which Skeptics can assert, challenge, debate, dispute, refute, discuss, wrangle, plead or generally argue the toss about items that have appeared in the Skeptic, or ideas they wish to propose or deny.

Asteroids and Aliens (the astronomer strikes back)

Well, the average reader of this journal must be familiar with the topic to be addressed here, so I see little need to provide a detailed introduction. This author wrote an article, which appeared in Vol 15, No 1 (hereafter referred to as S1: Steel article 1), in which he indicated that on the basis of a scientific analysis it is possible to interpret the observations of a singular object known as 1991 VG as being evidence for a population of alien spacecraft in the vicinity of our planet. Note that the writer does not claim that 1991 VG is an alien craft: he only states that a scientific analysis leads to that being a favoured result, although there are various qualifications to that conclusion which have already been spelt out. Dr Hans Weiler and Dr David Culpin wrote objections to the statistical arguments in S1, and these appeared in Vol 15, No 2 (W1 and C1 respectively), these being answered and rebuffed by this writer in the same issue (S2). Weiler then wrote a further Forum article, which appeared in Vol 15, No 3 (W2), along with a commentary by Professor Joseph Gani (G1). Weiler was kind enough to send a copy of W2 to this writer well ahead of publication, but I replied to him (Weiler) that I would wait until after the publication of W2 (to allow a fair airing of his ideas) before answering his article in print, a task which I now undertake.

Let me say from the outset that I am pleased with the good humour and consideration that Weiler has shown me throughout this debate; nevertheless I must state that, apart from being exasperated by the whole affair, I am annoyed and alarmed that in publication W2 Weiler has made several false statements that misrepresent what I have done, as Culpin did earlier. I will detail some of these below, but first, in order to engage the interest of the reader, I will point out that Weiler's assumed probabilities lead to his calculating a value for $P(R)$ - that being the probability that any object at all is observed in any calendar year - of 0.00000012. That implies that one expects - under the conditions in which 1991 VG was discovered - to observe one such object every eight million years, on average. Under that circumstance one must be assuming that the discovery of 1991 VG so soon after the start of the Spacewatch program was a fluke, which I have previously chastised Weiler and Culpin for doing (in S2): they fall into a circular argument, 'It was a fluke, therefore it was a fluke.' On the other hand, those with some knowledge of statistics would be able to say that for a process which is random in time (a Poissonian process) the most likely waiting time until the occurrence of some event of interest is 'no time at all'. In any case, I challenge Weiler to provide a justification for his

calculated value of $P(R)$; he has ignored the discussion in S2 in which I argue that one must accept that the observations made can tell us something about the universe. If one does not accept that, then we are paralysed: we cannot make any scientific observations at all, since we would need to always assume that events observed cannot be taken to be diagnostic of the real world/universe, but are all flukes. As I have previously written, the subject in hand hinges on a singular observation, so that it is certainly possible that it was a fluke - indeed, that is the explanation that I favour, through personal bias - but the argument is whether a correct analysis leads to such a conclusion.

For reasons of developing the present discussion logically, before listing Weiler's falsehoods I must first mention some misconceptions that he has introduced on the astronomical front. In S2 I noted that "Weiler makes a number of comments that are in error, especially towards the end of his article, but the reader will hopefully be able to discern them and so I will not pick them out." These errors were of an astronomical nature, for example when Weiler (in W1) wrote of asteroids 'arriving.' Clearly I was wrong not to have expended the space in S2 in explaining those errors, since Weiler (in W2) has defined his understanding of the problem in a context which is fallacious, astronomically-speaking, and I must clear that up.

Here is the actual problem: one makes a set of observations of the universe (and here we are addressing in particular the observations made by the Spacewatch team in Arizona of objects passing near the Earth), and one needs to interpret them in terms of what is actually out there. One also has other observations and experience to hand, of a diverse nature, but note that the Spacewatch team is the only group capable of discovering small, faint objects of the type under discussion here. I have discussed this previously in S2.

The objects in question are on heliocentric orbits, and they may be discovered by Spacewatch as they pass within the minimum geocentric distance making detection possible (for whatever target brightness).

Three distinct populations of objects may be suggested: asteroids (basically, natural lumps of rock in space), man-made objects (rocket bodies and satellites that have escaped the luni-terrestrial gravitational field to then be on heliocentric orbits), and alien spacecraft. There is no reason to suppose that those populations have changed in any substantive way during the period of the Spacewatch operations, which for convenience I have taken to be the five years starting late in 1989. Here is where Weiler errs

in defining the problem: he writes of letting A denote “the event that an asteroid has entered an orbit similar to the orbit of UFO 1991 VG”, and then “Let P(A) be the probability that A occurs in a random calendar year...” This, unfortunately, is misstating the problem and in doing so adding an additional layer of complexity: in reality what we are considering are three plausible populations of objects, all already in specified heliocentric orbits, and we may observe any object as it passes by the Earth. This is not a matter of ‘entering any orbit’: they are already there, and Isaac Newton had something to say about objects remaining in a state of rest or uniform motion unless some impressed force acts upon them, to paraphrase one of his laws of motion (OK, I know that they are in orbit because of the solar attractive force, but you get my point). Because of this Weiler sets up the wrong problem, and this leads to his statement “Let D be the event that no object has entered an orbit of the type considered. (Astronomers will agree that P(D) is close to 1.)” Well, yes, but this has nothing to do with the actual problem here, which concerns only the three unchanging populations, with constant orbits, during the five years in question.

It is because of this mistake in defining the problem, for which Weiler cannot be blamed since he has no great familiarity with astronomy and I should have put him right earlier, that I prefer to use Gani’s setting out of the problem (G1). However, even his definition needs to be altered slightly, since the astronomical context is not quite precise, as he anticipated in a couple of comments. In reading his commentary it seemed to me that Gani had not already read S2, which would have clarified several of the astronomical points for him. Nevertheless G1 is a good basis for an analysis, and I thank Professor Gani for his judicious comments, to which I will return below.

I can now deal with the falsehoods propagated by Weiler in W2. Firstly, in his opening paragraph Weiler writes that “If Steel is right, both Weiler and Culpin must be wrong, and vice versa. The only other possibility is that both sides are wrong.” Incorrect: I maintain that both sides are right, in their basic analysis of the form of the statistical reasoning.

However, I maintain further that (i) Weiler and Culpin accuse me of not carrying out a correct analysis, that accusation being based upon a misunderstanding of what I had done (since I did not originally spell it out, thinking that because this is merely a straightforward usage of Bayes’ Theorem, what I had done would be obvious to all); and (ii) Weiler (and indeed Gani!) has fallen into the trap of letting personal prejudices dictate the numerical values used in evaluating the result. I agree with Gani that Weiler and Culpin set out a problem correctly, but it is the wrong problem, and Weiler inserts scientifically-unjustifiable figures into his equations, thus deriving an expectation that an object like 1991 VG would be seen every eight million years, on average.

Secondly, Weiler states that “Since Dr Steel estimates P(C|R) without using P(C) and P(R|C), his mathematical deduction cannot be valid.” This is false: I have used P(C) and P(R|C) in order to estimate P(C|R), but Weiler cannot see it because he is trying to solve the problem back to front.

Thirdly, Weiler writes that “Only P(R|A) and P(R|B) seem to be discussed by astronomers: They should also investigate P(A) and P(B).” Actually, I have considered P(A) and P(B), as discussed below.

As a final complaint about W2, I note that Weiler adds another unnecessary level of confusion by assuming that P(R|C) may be larger than P(R|A) or P(R|B), on the basis that it might be steered so as to pass repetitively through the zone accessible to Spacewatch, a blind alley which Gani also turns into. I have already had some words to say about this (see S1 and S2), but clearly at this stage it is a level of complexity which is unwise and unneeded: let’s first investigate whether there is a case for 1991 VG being an alien vessel.

OK, now I’m going to attack the actual problem using symbols like those defined by Weiler and Gani (rather than the more verbal way in which I set it out in S2).

As did Gani, let us define unconditional probabilities

- P(A) that the object is an asteroid;
- P(B) that the object is man-made;
- P(C) that the object is an alien vessel; and
- P(D) that there is no object.

Here

$$P(A) + P(B) + P(C) + P(D) = 1$$

and if an object is definitely observed (1991 VG was tracked independently by at least three telescopes) then clearly P(D) = 0.

Conditional probabilities are written as P(R|A), P(R|B) and P(R|C), these having meanings along the lines that ‘given there is a specific object of type A present in such a heliocentric orbit, P(R|A) is the probability that it is detected.’ It is important to note that these conditional probabilities apply to specified individual objects in each population, and the numbers of such objects will affect the results that one obtains: if you arrive at a bus-stop and want to know the chance of a bus coming within the next five minutes, then your hopes will be fortified by the knowledge that there are ten buses per hour, rather than one a day.

It is part of the problem definition that we assume that all the objects, throughout all three populations, have equal detection probabilities per annum (since they are all assumed to have orbits and intrinsic brightnesses identical to 1991 VG, no matter what their provenance). Thus for each individual object P(R|A) = P(R|B) = P(R|C) = 0.00001 (a value which I have justified in S2).

The result that we are after is P(C|R) which may be stated verbally as being the probability that, given an object is observed, it is an alien vessel. P(A|R) and P(B|R) similarly apply to asteroids and man-made bodies.

Next we must define the event(s) of interest. Gani again set this out well:

- A&R is the event that there is an asteroid and a moving object is detected;
- B&R is the event that there is a man-made body and a moving object is detected;
- C&R is the event that there is an alien craft and a moving object is detected;
- D&R is the event that there is no moving object and a moving object is detected;

These have probabilities $P(A\&R)$, $P(B\&R)$, $P(C\&R)$ and $P(D\&R)$, with $P(D\&R) = 0$.

I now have to differ from Gani's description, in that he sets $P(A\&R) = P(A) P(R|A)$, and similarly for the symbols B, C and D, but this is tantamount to assuming that each of the populations A, B and C contain at most one member, and we have no such knowledge. Let us define x as being the number in population A, y the number in population B, and z the number in population C. Since the annual detection probabilities for individual objects are small (all equal to 0.00001), as I pointed out in S2 one can use the binomial approximation to derive an overall probability for each population/class. Thus we have:

$$P(A\&R) = x P(A) P(R|A) \quad (1)$$

$$P(B\&R) = y P(B) P(R|B) \quad (2)$$

$$P(C\&R) = z P(C) P(R|C) \quad (3)$$

$$P(D\&R) = P(D) P(R|D) = 0$$

The probability of a detection is:

$$P(R) = P(A\&R) + P(B\&R) + P(C\&R) \quad (4)$$

Finally, Bayes' Theorem gives:

$$P(C|R) = P(C\&R) / P(R) \quad (5)$$

with similar expressions for A and B.

We can now substitute in some values for the parameters for which we have measures. In S2 I quoted from Lewis Carroll's *The Hunting of the Snark*, and here I will indulge myself again:

*For the Snark's a peculiar creature, that won't
Be caught in a commonplace way.
Do all that you know, and try all that you don't:
Not a chance must be wasted to-day!*

To differ from Carroll, we should try only what we know, and not what we don't, if we are to catch this Snark. The first thing that we have a measure for - and this is where Weiler is trying to do the problem backwards - is $P(R)$, the annual probability of a detection being made. One detection was made in five years, so that we have a value of $P(R) = 0.2$ which can be put into equation (4). In reality $P(R)$ may be much smaller than that - or indeed larger - but at the present stage of our exploration of the solar system we can only work with the observations in hand. The sum of the results from equations (1), (2) and (3) must equal $P(R) = 0.2$; thus

$$x P(A) P(R|A) + y P(B) P(R|B) + z P(C) P(R|C) = 0.2$$

and since

$$P(R|A) = P(R|B) = P(R|C) = 0.00001,$$

we get

$$x P(A) + y P(B) + z P(C) = 20,000$$

Let us consider the three terms on the left in turn. I have personally inspected some thousands of asteroid

trails on plates taken with the U.K. Schmidt Telescope (UKST) at Siding Spring, and others have looked at more. None showed the same flashing signature as 1991 VG, although that may be explicable by the UKST-detected asteroids being larger and more distant; on the other hand, no asteroid observed by Spacewatch or any other telescope has shown similar flashing behaviour. UKST plates, however, very often do show flashing trails, these being due to man-made satellites in low geocentric orbits, the flashes being due to glinting from metallic panels as the spinning satellites pass through the specular reflection orientation for the comparative locations of the Sun, the satellite, and the telescope. I have seen hundreds of these on UKST plates, and the reader could do the same if he/she looked into the sky at twilight, when many satellites may be observed with the naked eye. 1991 VG therefore showed every sign of being artificial in nature, and not an asteroid, leading to a low estimation for $P(A)$. Although it is conceivable that there are asteroids in such Earth-like orbits as 1991 VG - for example resulting from large impacts on the Moon, the asteroids then being ejected lunar rocks which escape the luniterrestrial field - so that x may not be zero, counting against this are the facts that (i) No definitely asteroidal object has ever been seen in an orbit similar to that of 1991 VG; and (ii) Such Earth-like orbits are dynamically unstable, and would only be occupied for a few millennia at most before being radically altered by close approaches to the Earth. Thus we estimate both x and $P(A)$ to be small, and the $[x P(A)]$ term to be negligible.

Now onto the second term: that for 1991 VG being man-made. I have previously explained that no man-made object is known to have escaped into heliocentric orbit in the required epoch (1974/75). The only possibilities that I have heard seriously suggested are (i) Some gross unknown perturbation on some object launched in the late 1950s having by chance brought it around to the Earth in 1991; and (ii) An upper stage from the Apollo program of 1968-72 having remained in luni-terrestrial orbit for some years before in some way having slipped out into a heliocentric orbit in early 1975, with that orbit bringing it back to our environs in 1991. Between those mechanisms one would be really pushing it uphill to claim that y is as large as 10, and actually it is likely rather smaller. In any base $P(B)$ is at most 1, which means that $[y P(B)]$ is at most 10.

The above means that we derive

$$z P(C) > 19,990$$

and as I have previously stated, this form of analysis indicates that there would need to be at least about 20,000 alien craft in orbits like that of 1991 VG if this interpretation is to work (except that there are various get-outs as discussed in S1 and S2). I have also discussed why this is not an immediately excludable result: there are no other ways in which we would have detected such a large population, despite people often quoting the Fermi Paradox as proof that there is no life elsewhere in our galaxy (see S2).

If we now set

$$[z P(C)] = 19,990$$

then we have

$$P(C\&R) = z P(C) P(R|C) = 0.1999$$

and thus from equation (5)

$$P(C|R) = P(C\&R) / P(R) = 0.9995$$

and I freely admit that I previously refused to make any actual determination of $P(C|R)$. I have backed off from that a bit, just to carry the calculation through to its final line, but I will now immediately distance myself from the result: it is based upon a singular observation, so that it is highly uncertain. In fact, using the rule of thumb that the uncertainty in any observation count is given by the square root of the count, the flux of objects appearing like 1991 VG in five years is actually one plus or minus one, which allows a value which is very small, or zero, and as I have pointed out many times that is what I personally believe the value to be: I believe that 1991 VG was a man-made object detected through a fluke. But that is not the question; the question is whether a scientific analysis of the information available leads to such a result. My answer is 'no'.

Regarding the relative values for $P(A)$, $P(B)$ and $P(C)$ assumed by Weiler and Gani, this is an example of what in astronomy/cosmology is called the Anthropic Principle. Simply, one's cultural or species-specific bias is imposed upon one's way of looking at the universe, and so one cannot see it for what it is. I do the same thing when I point out my own bias in believing 1991 VG to be a returning man-made object. Perhaps a more understandable example of this sort of thing to the average reader would be in social anthropology: the anthropologist studying some other human culture knows that he/she must not impose his/her own culture's value system upon the subjects of the investigation, else much will be lost in any attempt to reach an understanding of that other culture. Try explaining the intrigue of cricket to the average citizen of New York. One has to realize that we're just beginning to scratch the surface in exploring the universe, and we know little or nothing about whether there are aliens elsewhere, or within our solar system:

'Space,' it says, 'is big. Really big. You just won't believe how vastly hugely mind-bogglingly big it is. I mean, you may think it's a long way down the road to the chemist, but that's just peanuts to space.'

(Douglas Adams, *The Hitchhiker's Guide to the Galaxy*.)

But back to the Snark. The poor editor of this journal seems to have been driven half-crazy by this exchange, as Lewis Carroll expected:

*He came as a Baker: but owned when too late -
And it drove the poor Bellman half-mad -
He could only bake Bridecake - for which, I may state,
No materials were to be had.*

In assessing the possible nature of 1991 VG, one must try only all that one knows, and not what one does not: there are no materials to be had for baking a cake which uses the assumption that the observation of 1991 VG was a fluke.

As I have written, the statistical analysis is really quite straightforward, and originally I did not think it necessary to spell it all out in detail, and this has resulted in a trial (by ordeal) for an imagined crime. Quoting Carroll again, with some missing verses:

*He dreamed that he stood in a shadowy Court,
Where the Snark, with a glass in its eye,
Dressed in gown, bands, and wig, was defending a pig,
On the charge of deserting its sty.*

*The Jury had each formed a different view
(Long before the indictment was read),
And they all spoke at once, so that none of them knew
One word that the others had said.*

*But the Judge said he never had summed up before;
So the Snark undertook it instead,
And summed it so well that it came to far more
Than the witnesses ever had said!*

*When the verdict was called for, the Jury declined,
As the word was so puzzling to spell;
But they ventured to hope that the Snark wouldn't mind
Undertaking that duty as well.*

*But their wild exultation was suddenly checked
When the jailer informed them, with tears,
Such a sentence would have not the slightest effect,
As the pig had been dead for some years.*

I do have one more thing to say. I put the first article in this series in *the Skeptic* in order to stir up some debate, rather successfully I would say, although (at this stage) I clearly maintain that my statistical argument is correct so long as one allows that the observations actually mean something, such that one may derive a value for the probability of detecting an object from the results obtained by the Spacewatch team. I have been claiming that what I have done is a 'scientific analysis', and so I am surprised that no-one has pulled me up by quoting William of Occam.

Occam's Razor is a maxim that states that assumptions introduced to explain something must not be multiplied beyond necessity. One might thus argue that I have introduced a phenomenon that is not known to exist - alien vessels - in order to explain something that may possibly be explained by known phenomena, even if as the result of a series of flukes (Apollo upper stage manages to escape luni-terrestrial orbit into one bringing it back by the Earth soon after the only telescope capable of discovering it was brought on line, and was then actually spotted, against the odds). That would be a valid argument to chew on, but then science never progresses much unless someone makes outrageous suggestions, and personally I don't give much for Occam's Razor.

**Duncan Steel,
Coonabarabran, NSW**

Editors Note: Further correspondence on this matter would be more properly carried on in professional publications. I haven't understood a word of it for the past two issues. ■

FORUM

Owning History

While living in the Boggabilla-Goondiwindi area on the NSW-Qld border a few years ago, I began researching the history of the incursions of white settlers into the area. I was surprised by the amount of prime source material which has lain untapped in State Archives, and uncollected from other sources, and the story it tells. It seems that ten years and 150km on from the events and processes described in detail by Roger Milliss in his massive *Waterloo Creek* (McPhee Gribble, 1992; UNSW Press, 1994), little had changed.

There was another surprise: people of the area, even those not descendants of early squatting families, were reluctant to hear the story revealed by those documents, or even have it told. Some went on the defensive, clinging to popular local myths, simplistic explanations and anecdotes - most of them without foundation and often contradicted by the historical record. They did this with a fervour comparable to that described by a number of contributors to *the Skeptic* who have, over the years, challenged myths and delusions.

Many of Annie Warburton's glib assertions (Vol 15, No 2) exemplify this reluctance of many to confront the "blindingly dark sun" of our history in this land, to use Claude Lanzmann's expression.

How on earth can she say that the "cruelty . . . meted out to poor, powerless white folks", however assessed, was "the same" as that inflicted on the indigenous population?

The white administrators who "actively sought to deal fairly and kindly" with Aborigines were few and far between, and their efforts often short-lived. Fewer were successful, and even fewer went beyond those minimal patronising goals of dealing fairly and kindly to deliver justice or enforce the law as proclaimed, for example, in Governor Arthur's 1828 poster.

During his first year as Governor of NSW (1838-9) George Gipps did provide five minutes of "equal justice" sunshine in prosecuting the perpetrators of the Myall Creek Massacre. Milliss describes how elements associated with the powerful squattocracy soon pulled him back into line, both directly through the Legislative Council and press, and indirectly through their influential patrons in England. And when a year after the Myall Creek massacre the new Commissioner for Crown Lands for the Gwydir, Edward Mayne, largely fulfilled his mandate to bring peace, law and order to the area, Gipps had capitulated to such an extent that Mayne and his successes were left to wither on the vine. (Milliss, Ch.19)

While it is true that Aboriginal people "copped a lot of the worst treatment from those same powerless (white) wretches", it must be said that they were often acting under orders. Many of their employers, and people like Major Nunn at Waterloo Creek, provided the example, direction, leadership, encouragement and protection for their depredations. John Fleming, the gentleman ringleader of the Myall Creek exercise, never faced court: the fifty pound reward Gipps offered for his arrest was never withdrawn or collected. He married in 1840, and was a warden at St. John's Church at Wilberforce for 23 years before dying a pillar of respectability in 1894. On the other hand, William

Hobbs, who had dared to step out of line and report the Myall Creek killings, was sacked and sent to Coventry, remaining unemployed for eight years.

Annie finds it convenient to locate the excesses of colonial history in the 19th. century. The massacres at Forrest River Mission took place in 1926; those at Conniston in 1928. The callous disregard for Aboriginal people displayed during the Maralinga atomic bomb tests is even more recent. And the worst impact of the regimes on Missions, Reserves, and many rural properties, as well as the policies of child removals often on the basis of the admixture of "white blood" persisted until recent decades, their legacy still with us .

True, there were any number of Oscar Schindler type figures: but they can never obscure that "blindingly dark sun", any more than can Annie's smokescreen of "confounding complexity and moral ambiguity"! The ideology and process of colonialism are not complex: they are only primitive natives; we want their land; we'll kill them if they try to stop us taking it. There is no moral ambiguity about murder, abduction, rape, enslavement, and racism.

If Annie had applied the processes of observation and rational enquiry to the historical records, even with its gaps and inadequacies, her acknowledgement of past "cruelty and neglect" would have been more substantial, and may have extended to the more recent past, and even the present. And I doubt that she would have lectured Aboriginal people or suggested they now pay a further price for the benefits brought to them by the so-called superior colonising society.

The list of benefits cited in her earlier article via the quote from *The Life of Brian* included trade, education, law, and order - as if only the coloniser's versions of these had value. They were here in 1788, as they were in Israel before the Roman invasion. To deny and belittle them is to echo the myth of Terra Nullius.

There is a widespread reluctance on the part of those who locate the bulk of our race-history in other lands to own our history in this land. I offer three recent examples.

1. In February last year, the Queensland Premier bowed to cries of outrage from Opposition politicians and media commentators - political correctness gone mad, rewriting history etc. - to order a rewrite of a draft Social Studies Unit for schools, because he "objected" to the use of terms like "invasion" to describe the colonisation of Australia. The Teacher Information Sheet prepared later by the Office of Cabinet conceded that "a considerable number of historians agree (with Aboriginal people) with the application of the term 'invasion' to some of the events which have taken place since . . . 1788".

2. Some columnists who came in on the "settlement" side of this debate, as against "invasion", later became passionate defenders of calling an historical spade a spade in the debate on *The Hand That Signs The Paper*. Extensive research and detailed knowledge of events; concern to place those events in context and avoid distortion or obfuscation: concern for the sufferings of victims and ongoing traumatisation - all these were manifest to a degree singularly lacking in the earlier debate. Frank Devine in

The Australian (August 24) even declared: "Nothing in the Australian experience remotely resembles the Holocaust." Nothing? Remotely? Did he forget to include Tasmania?

3. October 8 last, *The West Australian* published an article by Rod Moran claiming that the 1926 Forrest River Mission massacres never happened. A flurry of letters protested - two, incidentally, comparing the article to denial of the Holocaust. The paper later redeemed itself by running an article by Zoltan Kovacs (January 21) based on his own enquiries and the proceedings of the 1927 Wood Royal Commission into the massacres. He also reviewed Neville Green's new book *The Forrest River Massacres* (Fremantle Arts Centre Press), concluding that, despite some shortcomings and details which continue to be vigorously disputed, it "may well come to be regarded as the definitive version".

I suggest that this reluctance to own history underlies much of the passion in the debate about Hindmarsh Island. Many who have only recently come to call this land home do not want to acknowledge that we are in someone else's land. Ridicule of the stories which express and maintain the relationship of Aboriginal people with the land can become a means of denying them the exercise of a continuing custodial ethic.

Few people visiting Asian countries will ignore requests to remove shoes before entering a Temple, and many women will respect the request not to enter if they are menstruating, even if their noncompliance would go undetected. This is simply a matter of respect and courtesy, appropriate when in another's country. Scepticism about the basis for those requests is not compromised.

In my relations with Aboriginal people, I am amazed at the lack of collective hate and anger, and a desire to build better relationships and future for this land and everyone who now calls it home. They are as upset and puzzled by people wallowing in crippling guilt as they are by those who would ignore, suppress, trivialise, distort or romanticise the past.

The owning of our history in this land remains as threatening for many as the study of science is for many Creation Scientists. But we newcomers need to lay the ghosts of the past to rest, for our own integrity, and integrity in our relationship with this land, and its Indigenous peoples.

Richard Buchhorn
West End QLD

A Response

I do not defend the sometimes murderous excesses of the early white colonists of Australia in their treatment of the aborigines, but there is some peril in judging their behaviour by contemporary standards. Remember, European contact with the aborigines began at a time when it was not unknown for hungry children to be put to death for stealing food. We find this utterly abhorrent today, but what does the 'owning' of this history require of us now, Richard? That we tolerate juvenile crime because of the wrongs done to young people in the past?

Richard takes issue with Frank Devine over his assertion that 'nothing in the Australian experience remotely

resembles the Holocaust', and points to the example of the Tasmanian aborigines. With respect, I must side with Frank. There was never a policy of genocide against the Tasmanians. The white settlers may have been determined to take and keep the land by whatever means it took, including killing the natives, but direct violence accounted for relatively few aboriginal deaths. Ironically, at the time of the worst conflict between colonists and indigenes, Governor Arthur expressed the view that the whites were responsible for instigating most of it! His humane liberalism was later replaced by an official policy (spectacularly unsuccessful) that the best solution would be to round up the aborigines and confine them to the offshore islands.

True, the decline of the Tasmanians was rapid, and even humanitarians like Governor Arthur didn't understand what effect dispossession from the land would have on them, but susceptibility to European disease and their own destructive practices were also important agents in their near-demise. This is not a good or a glorious history, but it is a morally complex one.

I acknowledge Richard's point about the two events that took place in the early 20th century. I don't know the facts of the Forrest River massacre but I have no reason to doubt that it was something like what happened at Coniston Station in 1928*. This was in the Northern Territory, where I lived for 14 years. During that time the Coniston massacre was a frequent subject for historians and feature-writers - it was well and truly 'owned', if you like.

This is a simplified version of what happened: Aborigines killed a white dingo-hunter whom they believed had abducted an aboriginal woman; a punitive police expedition was mounted which killed some blacks and brought back two who were tried for, and acquitted of, murder. After another aboriginal attack on a white settler, who survived, a second police expedition extracted vastly excessive revenge. 70 to 100 blacks in all were killed. My *Concise Oxford Dictionary of Australian History* records that 'public outrage followed the killings'. A government Commission of Inquiry found that the police action was justified.

The police killings may have been unambiguously wrong, and the government findings reprehensible in the extreme, but bear in mind that 'public outrage', and the fact that two aborigines were *acquitted* of murder, presumably by an all-white jury. History being the sum of all its elements, there *is* moral complexity here.

If I denounce the killings and the government white-wash, and applaud the acquittals and the public outrage, and if I don't otherwise seek to distort or deny the darker episodes in our history, how can Richard accuse me of refusing to 'confront' or 'own' it?

Mind you, I don't believe this concept of 'owning' history gets us very far, quite apart from the fact that 'owning' in this sense is one of the trendy weasel-words of modern managerial psychobabble. The problem arises: Exactly *who* owns history? And for how long does this 'ownership' carry a responsibility to make special concessions?

Richard seems to be suggesting that Doreen Kartinyeri and her followers should be allowed to have their way in preventing construction of the Hindmarsh Island bridge, regardless of how demonstrably irrational their opposition might be, because of white Australian 'ownership' of a cruel history towards aborigines.

By this same token, wouldn't present-day Italians owe a debt of guilt to the Irish, say, because their Roman ancestors did some very nasty things to the Celts a couple of thousand years ago? And wouldn't the Germans owe the Italians something for sacking Rome? And shouldn't the British still hold it against the Norwegians for all that looting and pillaging back in the Viking days?

If you say those examples are too ancient, then to take a very recent and unambiguous example of historical wrongdoing - should Germany remember the Holocaust in all its dealings with Israel? Should they always stick up for Israel in the United Nations for instance, no matter what?

Personally I don't think Germany has forfeited its right, and indeed I think it has a duty, to assess each political issue involving the Jewish state *on the merits*. Otherwise it risks doing injustice to other members of the global community with legitimate aspirations in the Middle East, such as the Palestinians. Likewise the Australian Government has a duty to deal evenhandedly as between the bridge-opposers and the would-be developers.

An even bigger problem for Richard is the question of who 'owns' recent Australian history. This is a logical knot of gordian complexity. Why, for instance, should postwar non-British immigrants have to carry the can for what happened before they came? And if a postwar migrant marries the descendant of first-fleeters, is he in the clear while his children bear the shameful legacy?

If it's 'everyone who's not an aborigine', then even Doreen Kartinyeri owes something to her full-blood cousins, as her ancestry is patently part-European. Even if she denounces her European ancestry, as is her right, this won't help her according to Richard's argument, because personal responsibility and belief have nothing to do with 'ownership' of history.

(Incidentally, while many mixed-blood people choose to identify completely as aborigines because of the role of rape in much early interbreeding, it is also true that many aboriginal women chose to go with white men because they believed they would get, and in many cases did get, a better deal in life. During my time in the Territory there were a couple of *causes célèbres* in which young aboriginal women sought the protection of white law to escape arranged tribal marriages. Astonishingly, some hard-line white 'defenders' of aboriginal culture argued that 'our' law should not be used to assist the women. No prizes for guessing whose side I was on.)

And to whom, Richard, is the legacy of European 'ownership' of Australian history owed in the Hindmarsh affair? The aborigines who want the bridge to go ahead or those who don't? Why haven't you mentioned the so-called 'dissident' women, the ones who say, along with many other aboriginal people of the area, that the 'women's business' is a recent invention and a cynical exploitation of aboriginal heritage for political purposes?

However, for the sake of our original argument it helps to assume that the Kartinyeri camp are fair dinkum in their belief in the 'women's business'. So let us ignore the dissidents and the previous exhaustive anthropological enquiry and the fact that Ms Kartinyeri simply cannot or will not explain why a water-control barrage built from the mainland to the island back in the 'fifties has not adversely affected her health or that of her followers, and take up Richard's point about owing respect and courtesy to the customs and beliefs of others.

Good point, but is he saying that the Government should effectively treat Tom and Wendy Chapman (the developers) as foreigners in this country, and by logical extension, ditto all the rest of us? If so, then all aboriginal customs and practices, no matter how dangerous or unfair, would have to be tolerated, from forced marriage to ritual mutilation to 'payback' violence.

The fact is, trite though it sounds, governments sometimes have to draw the line. And a wise government will act for the common good, not from misplaced guilt over past injustice to one section of it. Which is not to say that governments should forget history, but neither should they be hamstrung by it.

I am not 'lecturing' aboriginal people, Richard, on the supposed superiority of 'my' culture, but I do say that any sane, informed human being can choose between a superior and an inferior principle. Nelson Mandela renounced violence and chose peace. So did Yasser Arafat and Yitzhak Rabin and Gerry Adams. The late Wandjuk Marika, the aboriginal elder whose life story has just been published, acknowledged that one good thing about the coming of the Europeans was that it put a stop to the endless internecine warfare between the tribes of his country.

I also take issue with anyone who maintains that a particular practice or belief should be allowed or encouraged to continue just because it's time-honoured. Slavery was once thought to be part of the natural order of things, as were the inferiority of women and the capriciousness of the gods in the disposal of human affairs. These traditions we can do without.

At one stage in the course of European history it was believed that criminal guilt or innocence could only be determined by subjecting the suspect to physical ordeal. In parts of Africa they still butcher people thought to be disease-conjuring witches. Time and the quest for truth have taught much of humanity that trial by ordeal and witchcraft are irrational practices based on ignorance. The 'women's business', even if genuine, is an irrational belief based on ignorance. The government may owe its adherents a sympathetic and sensitive hearing; it does not owe them a guaranteed capitulation.

* It's 'Coniston', not 'Conniston', according to my history book.

**Annie Warburton
Hobart TAS**

A Further Response

The very title (Aboriginal Religion) of Richard Buchhorn's *Forum* piece (*theSkeptic*, Spring 95) begs the question of possible fabrication of "secret womens' business" concerning Hindmarsh Island.

I must disagree with Richard that Annie Warburton is "more deserving of the Bent Spoon than Robert Tickner!" (Now that's just vicious.) Especially as she all she did was express a smidgen of doubt by writing "Some aboriginal women told Tickner they believed their health and fertility would suffer if the bridge went ahead, although they wouldn't say why." In any case I don't think that the issue of fabrication is crucial to the question of intervention by Robert Tickner.

As I understand Annie's original nomination of Tickles for the Bent Spoon, it was that he should have not made the decision on the grounds of belief, irrespective of the truth or falsity of the claims, a proposition I would agree with. Because this decision was not the same as giving a tax-exempt status to churches. Governments grant tax-exempt status a variety of groups and organisations, many of which I consider to be mad, bad, and dangerous to know. I might not approve of this, but I can see that mere venal vote-buying is not the same thing as a government enforcing the views and policies of those groups.

To get back to religion, Christian Scientists and Jehovah's Witnesses have beliefs about medical treatment, Roman Catholics have beliefs about contraception and abortion, and Fundamentalists have views about Darwinism. In no case do governments take action to require these beliefs to be applied to society in general.

However, to make the argument interesting let's not assume the religious *bona fides* of Doreen Kartinyeri and her followers, and examine the issue of possible fabrication. Tickner's decision seems to require acceptance of three propositions:

1. We should respect other peoples beliefs.
2. Beliefs are defined by the people claiming to hold them.
3. Society should intervene to support these beliefs.

Now Proposition 3 would seem to require acceptance of Propositions 1 and 2. If they don't hold, then there is no justification for intervention. As I have explained, I consider proposition 3 to be invalid, irrespective of the merits of the first two. I would go further and submit, as Skeptics, we should dispute propositions 1 and 2. Actually, if we don't, we Skeptics might as well shut up shop right now.

If we follow Richard Buchhorn's argument, none of us should ever do or say anything that might dispute anyone's beliefs. I see some problems in this. Indeed Richard seems to have offended in this matter with his suggestion that the aborigines "roots in this land go back tens of thousands of years. Fundamentalist Christians, including the Creation Science Foundation, have beliefs that make it impossible for this to be true. And I have been told at tedious length "we would never think of questioning any Christian beliefs".

Now I'm not a Sensitive New Age Guy, but I'm prepared to do the politically correct thing and display respect for traditional belief, but I would like some assurance that the belief really is traditional and not something conjured up during some feminist support group session a couple of months ago. To be conned into believing some Euro-feminist Earth Mother fantasy: that would be degrading.

Contrary to what Mike Stekee (*The Australian* 27-28 May, 1995) suggests it is not necessary to unthinkingly accept this a genuine belief. While it may be good enough for journalists, as skeptics we should be applying higher standards than a "leap of faith".

The sceptical position should be, when confronted by any proposition, to reserve judgement until some evidence is available. And, as the burden of proof is on the claimant, reserving judgement means withholding acceptance of the claim. Secondly, we should consider alternative explanations; In this case, that the "womens' business" was a fabrication dating from the early 1990s.

In this case, it seems to me that the none of the claims and evidence revealed have been inconsistent with the proposition of recent fabrication. On the other hand, the arguments for a long established belief are weak, illogical and contradictory, and would only be credited by those really want the "womens' business" to be true.

But I wouldn't recommend my opinion, because by this stage I am going to be really pissed off if the business turns out to be genuine. Because I have been impressed by the way the so-called "dissident" Ngarrindjeri have presented their case for fabrication. Even though it could expose me to a Littlemore mockery, I will go so far as to describe them as courageous in the manner which they have faced attacks by politicians, the anti-development lobby, feminists, most of the media, and the very people that are supposed to look after their interests: the Aboriginal bureaucracy.

I will also admit to a distinct lack of sympathy with the actions of the "womens' business" proponents. It has been reported that the "secrets" supporters threatened to spear one Rocky Marshall, in order to thereby demonstrate their "concern" about the matter. (Shades of Annie's mention of Monty Python's feared Dinsdale Piranha: "Yeah they did suggest spearin' me, but that was to show their sincerity, like."). Call me Eurocentric, but I think this is one of the aboriginal "laws, customs, and institutions" we should not respect, even if they were here first.

Tickles and friends have argued that, in view of the expense of the Commission and the rift it has created in the Ngarrindjeri community, the commission should be scrapped to allow reconciliation and the wounds to heal.

Nice in theory, but during the Friday 1 protest against the "racist, sexist, religious rape" of the Commission, Doreen Kartinyeri declared she would never forgive the fourteen dissidents; "As long as I live, the rift between us will never, ever heal". So I have some qualms about the wisdom of ceding the field to Doreen and her chums in the Aboriginal bureaucracy.

The whole thing is an almighty mess, and whatever the final conclusion is, it's going to be unsatisfactory, but perhaps that's the inevitable result when you let politicians make decisions.

On rereading this submission, it might seem to be a bit flippant. I do think the issues involved are important, and they do demand serious thought. If I have appeared less than respectful, I can only plead that the actions of the supporters of the "womens' business" have failed to inspire respect. Indeed I have been criticized by an announcer on Your ABC for putting a *Southern Skeptic* report on their actions under the heading *Entertainment*; in his words "almost like a theatre review". Actually that was pretty close the mark. I'm only puzzled how I came to put a review of Street Theatre under the heading of *Entertainment*.

Allan Lang
Colonel Light Gardens SA

Editor's Note: While this issue does contain elements that are well within the parameters of what the Skeptics consider to be our territory, we would not like to continue an argument that is in danger of becoming purely political. Correspondents are requested to confine their remarks to those issues that are properly addressed under our guidelines. ■

FORUM

Political Conspiracy

I am curious about Paul Rackemann's letter in *the Skeptic* (Vol 15 No 3). I am not quite sure exactly what he is driving at (though his reading material suggests he is attracted to the conspiratorial view of history) but his letter does merit response.

First the *bona fides* of the Australian League of Rights need to be established. The League grew out of the Social or Douglas Credit movement which has had a small following in Australia and (mainly) other Commonwealth countries and I would think that the propagation of social credit would still be the group's primary function.

Briefly, Major C H Douglas, the founder of the movement, thought that banks were deliberately causing money shortages within the capitalist system and that governments should intervene to provide their citizens with social credit which would generate more money and business and hence be a good thing.

Central to Douglas' thinking was a virulent anti-Semitism that saw the Jews as the real instigators of a conspiracy designed to destroy Christian civilisation. In the 1930s social credit was attractive to many on both the left and right of politics, in part because of the widespread belief that there was 'money power' conspiracy commonly held to be Jewish. Left wing support for social credit has disappeared and since the mid-1950s the only organisation in Australia primarily supporting social credit is the League of Rights. I know of no economist who has ever supported Douglas' theories and even in Canada, where a social credit government was elected in Alberta, these economic theories proved a dismal failure.

The League of Rights is undoubtedly Australia's most successful and long lived political grouping on the extreme right of politics. It was formed in 1946 in South Australia and shortly afterwards in Victoria. Since the early 1960s it has formed itself into a national body. Its success has largely been due to the dogged enthusiasm of its most significant member, Eric Butler. Butler's first significant book was *The International Jew* which, among other things, postulates that Hitler was Jewish and is Butler's commentary to the notorious forgery *The Protocols of the Elders of Zion*.

Butler's anti-Semitism has grown a little more subtle since he wrote that book but it is still one of the hallmarks of the organisation. Like most far right wing groups the League's alliances and views of conspiracy have been constantly shifting. At one time it was aligned with the American John Birch society and Butler was correspondent for their journal *American Opinion*. However that marriage ended bitterly and Butler now seems to believe that the John Birchers are themselves Zionist tools. Of late the League has probably been most noteworthy for its opposition to the war crimes legislation, partly because of its revisionist views on the Holocaust - another Jewish cover-up.

The League also supports a number of Christian fundamentalist views as two of Butler's titles indicate: *Releasing Reality: Social Credit and the Kingdom of God and Centralisation - The Policy of Satanism*. They also

distribute through their Heritage Bookshops titles like *The Evolution Hoax Exposed* (former title: *Why Colleges Breed Communists*) a particularly nasty little title by the equally nasty New Zealand professional anti-Semite and bigot A N Field published by the Christian Book Club of America. Even the CSF wouldn't touch this one (I think).

A great deal more could be said about the League and I have only concentrated on a few aspects I think would interest most readers of *the Skeptic*. To be brief it is another fringe group which peddles views as lacking in foundations as astrology, numerology or any other paranormal garbage. It promotes anti-Semitism and a host of conspiratorial fantasies which from time to time cause concern in communities around the country and is worthy of ritual debunking by groups like the Skeptics.

Mention of the two authors cited by Mr Rackemann is also appropriate. Caroll Quigley's book *Tragedy and Hope* occupies a special place on conspiracy theorists shelves, not because it says anything particularly original (there is the usual parade of bad guys like the Illuminati) but rather because Quigley thought the conspiracy was a rather good thing. To those attracted to these ideas this is in itself further proof that there is an international and ongoing secret threat to life the universe and everything

The other author cited Antony Sutton, seems to have been an academic who quietly fell out of his tree. He was originally employed by the conservative American think tank, the Hoover Institute as a defence policy analyst. Somewhere along the line he apparently concluded that the Soviet Union could not make any of its own weapons but rather 90% or more of their arms were given to them by the United States - secretly of course. The Hoover Institute promptly got rid of him and his views are now peddled through small right wing publishers like Heritage Press.

Finally, conspiracies, like the paranormal are rather popular and often intertwined (eg government cover-ups of meetings with aliens). Most New Age bookshops have a section and it seems *de rigueur* to have the odd conspiratorial tome on the bookshelves next to the crystals and tarot cards. Similarly fundamentalists and many creationists also peddle conspiracy theories that can combine a number of areas depending on the imagination and predilections of their proponents. For instance, some groups combine such strange bedfellows as the Illuminati with evolutionists to come up with a Satanic plot.

**Peter Henderson
Burradoo NSW**



Renew at Once!

(repent at leisure)

FORUM

Best Practice?

I recently received my first issue of *the Skeptic* and was more than a little disappointed that the contributors, and the conference papers, tended to focus on the obvious and spectacular - UFOs, "Cults" (aren't a group of sceptics a cult?) [No. Ed] and scientific fraud and abuse - rather than the subtle, insidious and, therefore, more dangerous belief systems - the ones not generally recognised as belief systems.

What started this particular piece of metaphorical hair pulling was an article in the *SMH* - 5 October 1995, page 4 - headed: "Teachers seen as expendable, says Kernot", which states, inter alia, that: "The Federal Minister for Schools, Mr Free, will today announce a national scheme to recognise best practice in teachers' work." and "As schools develop ways of meeting the new challenges in education, I believe we should highlight the best practices developed and applaud the school teams which develop them."

Just to take those two short paragraphs, I assume the Minister, the reporter (bylined as Stephanie Raethel, Education Writer) and many readers will not recognise this as rubbish, let alone question it. Yet rubbish it is and of a kind that is spouted at us from all directions - without, it seems, any voices raised against it.

To expand, and take the minor point first, what are these "new challenges in education"? Surely, the aim of education, rather than training, has always been to teach that which can be taught and to provide an environment which, hopefully, will encourage as many as possible to learn that which may only be learned. These have been the challenges of education for millennia and "success" is enormously difficult to measure - probably impossible but we know we are very good at measuring things so I will not depress all our obsessive measurers. After all, which is the better educated: the person who can tell you everything that everyone knows or the person who breaks all the rules - because of ignorance, wilfulness or carelessness - to discover something that no one else knows and has the ability to recognise its value? I know which I, personally, consider the most fun!

The more important point concerns "best practice". What are they talking about? "Best practice" of what? "Best practice" for whom? Whose personal idea of "best practice" is to be foisted upon us? (A timely reminder that the definition of an expert is "an unknown drip under pressure" and that of a specialist is "one who knows more and more of less and less, until (s)(h)e knows absolutely everything about absolutely nothing".) "Best practice" means a superlative - not merely "better than" but the "best possible". How are we to know the best possible, particularly when we are not able to define what it is the best possible of? What do we do if we find out what we thought was best practice is being bettered - and by the time we have discovered that it will have been bettered elsewhere.

Of course! I am being facetious - deliberately and wilfully distorting the obvious! What is meant is the best practice in teaching, of course! All we have to do is measure it!

Have you ever met two teachers - or two academic edu-

cationalists or, for that matter, two students - who could agree on what constitutes good teaching, let alone the best?

There is no such thing as "best practice" - in anything; there may be better practice, for a while or for some or for somebody, and, often, there is demonstrably bad practice and deciding between them is a matter of judgement, often of making personal assessments because what is good for me might be awful for you and vice versa. Nowhere is this more so than in situations where we have people dealing with people - shopkeeper with customer, taxi driver with passenger, manager with staff or teacher with student (and from time immemorial students, of all ages, have made their judgements about their teachers - and made them known).

In a misuse, an abuse, of scientific method we have let others decide that we must be objective - elsewhere I am trying to show how this is probably impossible - even when we should be subjective. Subjectivity is not wrong - it is, ultimately, all we have. Subjectivity is, after all, only making up your own mind with whatever abilities and tools you may have; you may come to misguided judgements, you may do irreparable harm to yourself and others and this is the excuse used to withhold this privilege from you - even if it precludes giving you the opportunity of doing great good.

All we can hope from education - formal, for what little influence it seems to have, and informal, which is life long, immensely influential and almost never discussed - is that it provides as many people as possible with some effective tools to make valid judgements and measured actions. The only reasonably effective way of achieving this seems to be to inflict on them the widest possible range of conflicting influences and ideas; if they survive the resulting confusion, you may find them, in their dotage, sitting on a mountain top and muttering, over and over again the rubric: "Forty-three"!

Hopefully, we will encourage enough people to treat nonsense to the rough handling it deserves - whoever the propagator. Some immediate and deserving targets, aside from "best practice", are "quality assurance of universities" (Don't these people know that these institutions were invented so that adolescents could learn to get drunk and bed the opposite and/or the same sex in the hope that said adolescents will become so ill and dispirited that they will come out the other end as obedient citizens? Unfortunately, the majority enter as simpering dullards and exit without any change other than the quite erroneous belief that they are smart!) and, those hardy perennials of my garden of weeds, the newly elevated sciences of economics - rational and otherwise, psychology, sociology, management and marketing.

Fellow sc(k)eptics, it is not the belief system that we recognise as a belief system that does the long term damage, it is the belief system that is promoted as a "fact" that is the one that gets you!

Keith Birney
Lane Cove NSW

FORUM

Big Bang

I am writing to express my amazement that no-one has yet taken Colin Keay to task on his blatant misrepresentation of Big Bang cosmology made in the Autumn 1995 issue of *the Skeptic*. I have no formal qualifications in Physics but I am a reasonably well informed lay person, having read books by such worthies as Paul Davies, Steven Hawking and John Barrow on this particular topic. What I have read is not in accord with Prof Keay's article and differs on some substantial points. Now it is possible that the current crop of authors on this topic have set out to misinform the public in their zeal to protect their pet theory, but as I understand it, the following facts are not in dispute by anybody.

Whilst it was Lemaitre's original idea, George Gamow provided the Big Bang theory with a serious theoretical foundation. His co-workers, Ralph Alpher and Robert Herman further refined it with the prediction that there should be some residual radiation left over from the primeval fireball, and calculated its temperature. This was in 1948, long before Penzias and Wilson eventually discovered this radiation. The theory even then predicted (amongst other things):

- a) That the background radiation would be uniform in all directions;
- b) That the temperature of that radiation would be 5 degrees Kelvin. (the actual value turned out to be 3K).
- c) That the frequency distribution of that radiation should be that of Black Body radiation. In fact, the COBE satellite recently provided data points that fitted the theoretical curve precisely.
- d) That roughly three fourths of cosmic matter is Hydrogen and one fourth Helium, with the other elements less than one percent.
- e) That astronomers should see ever larger numbers of galaxies per unit volume of space the further away they look, because they are looking backward in time and hence closer to the Big Bang. Also, as part and parcel of this, astronomers should see the evolution of galaxies as they look further back in time.

Now these are pretty specific predictions, the majority of which had not been observed at the time they were made. This is born out by the fact that when Wilson and Penzias first detected the background radiation, they had no idea what it was. In their efforts to remove the source of the interference they were experiencing, they even scrubbed their microwave antenna clean of what they euphemistically termed "white dielectric material" (pigeon shit).

As I understand it, the Steady State theory (at least in its first draft), made no such predictions, and those that it did make, failed to eventuate. Every one of the initial predictions of the Big Bang theory was eventually born out by experiment, (along with more recent predictions). In the light of this, I find it surprising that Prof Keay can claim that "like Holy Writ, the Big Bang theory has made no successful predictions".

Prof Keay also makes the comment that the explanation for the small scale fluctuations in the background radiation rests on the assumption that there was a big bang in the

first place. I may have misunderstood what he intended to say, but to me this is tantamount to saying that in order to explain the orbits of planets we have to assume a theory of gravity in the first place! Does this invalidate the theory? Of course these fluctuations were explained in terms of the Big Bang theory; they were a major prediction of that theory and the reason COBE was launched in the first place!

All this is not to say that the Big Bang theory is unassailable, there are many problems with it, as its proponents are well aware. It may well turn out to be untenable in the long run, but it has had some significant successes to date, which Prof Keay appears to deny.

This brings me to my final point. I get uncomfortable with scientists using terms like "Religion", "Dogma" or "Holy Writ" when referring to scientific theories. This kind of loose talk plays right into the hands of the Creationists. It is precisely their contention that science is just another belief system, and as such, no more valid than any other. Thus, by extension, scientists are just the 'high priests' of yet another religion. We all know that this is not what Prof Keay intended, but that sort of comment, made by a reputable scientist, is just the sort of thing that our friends from the CSF love to quote. In fact, I could envisage Prof Keay's article appearing in that venerable organ *Creation - Ex Nihilo*, in full, with no creative editing, under the headline "Professor of Astronomy declares Big Bang a hoax!".

As Skeptics we need to do better.

Charles Nagy
South Yarra VIC

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Tackling the Tiddlers

Harry Edwards

Geoffrey H. Sherrington is a welcome new boy on the block, and made his debut on p 33, Vol. 15, No. 2 of *the Skeptic*, with a scathing review of Al Gore's book, *Forging a New Common Purpose*. However, he asks, "Why do Australian Skeptics devote so much effort to tiddlers like Mr Simon Turnbull, Mr Ken Ham, and spoon-bender Uri Geller when the real damage is coming from bigger fish to fry?"

As a newcomer, Geoffrey may not be familiar with the Australian Skeptics general statement of purpose which excludes religion and politics as they lie outside the ambit of our published aims; our primary aim being "to investigate claims of pseudoscientific, paranormal and similarly anomalous phenomena, from a responsible, scientific point of view." The principal reasons being, in the case of religion, that it is more the province of social science, and the supernatural tenets on which religions are founded are not testable. However, where present day specific claims are made in the name of religion, *eg* creation "science", healing miracles, visions and prophecies, then they can, and will be addressed.

Politics is viewed in much the same way, and to indulge in debate or criticism of general political policies and opinion would be futile and nonproductive, hence comment tends to be restricted to specific matters with paranormal or pseudoscientific connotations. Cases in point where the Australian Skeptics have dealt with these issues, are, the Commonwealth Attorney General's enterprise agreement with its employees, whereby a sick leave certificate from an "alternative" health practitioner would be as acceptable as one from an orthodox medical practitioner; and Robert Tickner, Minister for Aboriginal Affairs, and the Hindmarsh Island bridge fiasco in South Australia. I agree that when political comment smacks of scientific illiteracy it should not go unchallenged, a perusal of past articles in *the Skeptic* on subjects such as the greenhouse effect, nuclear energy, and the linking of cancer with electromagnetic radiation from power lines is testimony to that. In addition, our journal is widely subscribed to by the teaching profession

and it is to be hoped that our views and findings filter down to where they will have worthwhile influence.

The question that needs to be asked however, is not why are we wasting our time with tiddlers, but whether we get more mileage out of the them than by indulging politicians. In my opinion, the answer is a resounding Yes! Whereas I doubt that Al Gore's book would have been widely read, at least by the general public, consider the publicity generated by our investigations into the three persons mentioned by the Geoffrey. My own investigation into the Psychics' Association was given generous coverage by all sections of the media, and it is to be hoped that it may have given those who patronise psychics, food for thought.

Ian Plimer's book, *Telling Lies for God*, and his ongoing battle with fundamentalists (of whom Mr Ken Ham is one), has received international attention, provoking the Creation Science Foundation into expensive advertising and denials. The publicity has been enormous.

James Randi has been an active antagonist of Uri Geller for decades, and the self-professed psychic's failed litigation against Randi and CSICOP has dealt him a mortal blow. He has also been publicly branded by the Federal Court of Appeals, Washington, as:

"... a self proclaimed psychic... (who) has built a career and reputation on attempted demonstrations of these psychic "skills"... Among Geller's critics is James Randi, an accomplished magician, author and lecturer, better known as "The Amazing Randi"... Since Geller's rise to prominence in the early 1970s, Randi has set about exposing various Geller feats as the fraudulent tricks of a confidence man."

Thus Geller has finally been exposed for what he is, and few, if any, would now have any credence in his claim to possess psychic powers.

Given the millions who are now aware of one or more of the above, I aver that Geoffrey's "tiddlers" are far easier to snare, well worth fishing for, and succulent to boot. ■

BLATANT PLUG

Aurealis - Australian Fantasy and Science Fiction

We believe that many Skeptics are also science fiction fans, but one of them has done something about it. Dirk Strasser, from Melbourne, a long-time supporter of the Skeptics, edits *Aurealis*, a bi-annual magazine that publishes works in the genre by Australian authors.

At the Skeptic, we can only applaud this venture and we are more than happy to promote this venture, especially as it encourages Australian creative talent. In this issue you will find an insert, advertising *Aurealis* and other products from its publisher Chimaera Publications.

One of the purposes of the Skeptics is to encourage creativity, while tempering it with critical thinking. Many, many people write science fiction and fantasy, but some of them seem to think it is reality and that should be of concern to us all.

As Dirk Strasser says, "The editors [of *Aurealis*] have always preferred their psychic healing and UFOs to appear as fiction".

And so say all of us.

Alternative?

At 58 years of life, I doubt if there is another person, apart from my wife as happy as I am. Being a skeptic, surely has helped me to enjoy life to the fullest, as I will explain.

Some eleven years ago I was working in the Audio Cabinet Department of AWA in Sydney, when, to my embarrassment, my hands used to shake while holding cup of coffee during the lunch breaks. Walking up the stairs to the toilets caused my chest to feel tight and my breathing was difficult. During the same period I was diagnosed as having arthritis and the doctor said in no unclear terms that I would have to rely on prescribed drugs for the rest of my life.

Fortunately my scepticism soon came into action and I decided to question the advice of that representative of medical science. Following some basic principles that had been subdued in the back of my mind for many years, I began to take responsibility for my own actions. Open mindedness, plus freedom from the tunnel vision restraints obviously implanted upon many professionals by the rigours of academia, I started a research into the reasons why these things happen. That led me to decide that a change in my lifestyle was imperative (choice of foods for example), if I wanted real enjoyment to be part of my life again, free of the consequences of iatrogenic disease. Naturally I had to overcome the influence of mass-produced attitudes that translate in peer pressure. In other words, many would tell me that there is no real life to be lived after a change of lifestyle!

Now, what prompted me to write this letter is to comment about the amazing variety and interest of the contributions being included lately in *the Skeptic*. It is highly educational material, among which the pedagogic ability of Paul Davies, the honesty of Steve Basser and the daring statements by Duncan Steel are only some examples of fascinating reading. One item that has worried me though, is the article titled "Alternative Medicine" by Richard Gordon that appeared in Vol .15, No. 2 as looking more like an arrogant, political style kind of delivery. He starts by making

LETTERS

We welcome letters from our readers on any topics that may be of interest to other Skeptics.

We reserve the right to edit letters for reasons of clarity or space

an 'alternative medicine 'soup', mixing items like astrology and dowsing, which for the first time I have seen classified as such. Then he tries to explain the difference or rather no difference between the terms "alternative" and "complementary" and by the way, I must inform Richard Gordon that these, as well as orthodox (I would call it artificial medicine) are slowly becoming obsolete. In fact a concept that is rapidly gaining followers in this part of the world is "alternative to medicine".

I have a tremendous admiration for some branches of orthodox medicine, especially surgery. Twelve months ago, during my habitual work as a woodcraftsman, I put one of my fingers in the wrong place at the wrong time in a circular saw, with the obvious result. I was driven to the local hospital where the young doctor performed on my finger, an excellent act of craftsmanship. Because it was a compound fracture, he insisted on two things: first, I should have antibiotics and tetanus injections and soon I should go to Cairns Base Hospital for assessment and further treatment. He explained that infection in the bones was a serious risk, and difficult to treat. I politely refused to have the injection and the antibiotics. I must say that I didn't have any problems and my finger now is normal.

Stephen Basser says (Vol.15, No3 p 22) that not all of orthodox medicine is scientifically proven, besides it would be foolish to assume that all scientists and their proofing mechanisms are temples of honesty, when, in order to earn a living get into bed with those whose only motivation is drug manufacturing enterprises' sheer greed.

Finally I'll borrow this quotation from Oliver Wendell Holmes, a man of medicine and also a writer who lived in the last century, "The disgrace

of medicine has been that colossal system of self deception, in obedience to which mines have been emptied of their cankering minerals, the entrails of animals taken for their impurities, the poison bags of reptiles drained for their venom, and all the inconceivable absurdities thus obtained thrust down the throats of human beings suffering simply of some want of organization, nourishment or vital stimulation. If all the drugs were cast into the sea, it would be so much better for mankind and so much the worse for the fishes."

**Alberto Gallo
Gordonvale QLD**

Relativity

John Winckle's letter about relativity (*the Skeptic*, Vol 15, No 3 p. 65) raises a number of interesting points about relativity. I agree with him that scientists should have a better grasp of the history and (dare I say it?) the philosophy of their own field. I also have grave misgivings about some of the lengths cosmologists, in particular, will go to in order to save some favoured hypothesis.

However, John has misunderstood the concept of "finite yet unbounded" if he thinks this is contradictory and absurd. The world is full of things which are both finite and unbounded. The surface of a sphere is finite, but there is no boundary on the surface which marks the end of the surface. Thus, it takes only a finite amount of paint to colour a beach-ball, but an ant crawling around the ball in any direction will never reach a boundary. If this ant crawls in a straight line it will eventually return to its starting point.

The circumference of a circle (or for that matter an oval, square, or any other closed shape) is also finite, but there is no boundary *on the circumference* to mark the end.

Similarly, the Universe could have a finite volume without there being a "wall" or boundary *in the Universe* marking the end of space. A long-lived astronaut could fly in a straight line and eventually return to her starting point. If this is contradictory and absurd, then so are cricket balls and dinner plates.

Roland Seidel observed at the National Convention that ideas cannot be rejected just because they sound

far-fetched. Common sense often fails because our brains are well-tuned to a very narrow set of conditions, such as distances between a few millimetres and a few kilometres, times between a few seconds and a few decades, and so forth. When faced with phenomena that take place over millions of kilometres, or a few billionths of a second, is it any wonder that common sense is such a poor guide?

Roland also observed that the position of reputable scientists prior to the Wright brothers' invention of the aeroplane was that heavier than air flight was impossible. This is a perfect example of scientists being such experts in a limited field that they can't see the ocean for all the water. Surely they must have noticed that birds both fly and are heavier than air?

Steven D'Aprano
Plenty VIC

Relativity II

I would like to propose a competition for the best letter to the editor, to be judged by the readers. If this ever eventuates, my vote would go to John Winckle of Currumbin (Vol 15, No 3). His letter challenging some current physics theory, indicates an original thinker who is not overawed by the formidable army of doctorates appearing in *the Skeptic*. He gets my brownie points for using his own brains, instead of the ubiquitous reference quoting which often accompanies some of the academic screeds. Isn't this what scepticism is all about?

Like the old warrior in Sir Walter Scott's *Lay of the Last Minstrel*:

"No saint nor lady called to aid, but bent his head and couched his spear, and spurred his steed to full career"

The chronic quoters of other people's work in science hardly differ from the mystics who prove their arguments with quotes from the book that was written before thinking was invented.

All good movements have a lunatic fringe and it sometimes seems that the tail is wagging the physics dog.

According to *The Bus Driver's Guide to the Galaxy*, the speed of light is relative to the medium through which it passes. That's why a lens

works, or a gem sparkles. Light or energy is not carried by nothing, therefore space must be filled with something real, not imaginary "aether". The something real is probably widely dispersed atoms which would be attracted by the gravity of any star and drawn into it at an accelerating rate. Any light passing said star would encounter a cross current and would come out a bit downstream, therefore it is the light that is bent, not space. Black holes have got me beat. If light and radio waves can't escape their gravity, how does evidence of their existence get out?

Clive Robbins
Cromer NSW

UFology

One night, the young boy around the corner knocked on my door and said "Bring your telescope around, we are all looking at a flying saucer". There were six persons who said to me "Look at the speed it is moving; look at the way it is flashing coloured lights." I looked and couldn't see anything.

There was a high cirrus haze and no cloud that could give the impression that, say, the moon was moving, instead of the cloud itself, just a haze.

I looked for something moving and flashing coloured lights and said "I can't see a thing."

They all said that they could see it and why couldn't I? "You must be able to see it; we all can."

I finally said, after vain endeavours to see this speedily moving object, "Could one of you tell me where it is, relative to something on the horizon".

One of them said, "It is four chimney lengths above that chimney over there."

"I looked and said "That is the star Canopus. It has been there in the same place ever since I got here. I was looking for something moving at high speed and flashing coloured lights I didn't think you meant a star".

As it happened, Canopus was the only star bright enough to get through the haze.

They said "But it is flashing different colours."

I said "All stars do that when they are low on the horizon".

So there were six people who could have phoned the media and reported a UFO and been completely mistaken.

Fred Guy
Elizabeth South SA

Immunity

As a GP with a concern about public health, I felt obliged to take up the challenge of attending a 'public meeting about vaccination' held recently in our area by 'Dr Vera Scheibner Ph D'. Flyers advertising the meeting were sent to local kindergartens and I was disappointed to note that Dr. Scheibner's visit was promoted by some local chiropractors, who we are all doing our best to accept as fellow health professionals.

The meeting was not exactly packed but there were a number of true believers who seemed happy to lap up the pseudoscience dished up at a rapid rate by Dr Scheibner. I seemed to be the only sceptic in the audience and I probably declared myself a little too early by blurting out "mischievous nonsense!" when she produced a couple of anecdotes of cot death and went on to claim that SIDS is a direct result of vaccination. Some of her other gems were that vaccines not only do not work but actually make us more likely to get infected eg the polio epidemics of the 40s and 50s were largely due to the population having previously received diphtheria vaccine! She loved to quote *Medical Journal of Australia* (mostly old or out of context bits extracted from letters) and so she appeared a slightly miffed when I produced the latest issue which had an editorial promoting the WHO program of eradicating polio, through vaccination.

Overall, however, I felt a bit overwhelmed by the task. Despite having some useful advice on strategies from Stephen Basser, I was not able to stem the sale of numerous copies of Dr Scheibner's book - available for \$30 in the foyer. I felt a great admiration for Ian Plimer's ability to debate and debunk the creationists and I noted the irony of Dr Scheibner's only scientific qualification being an old PhD in palaeontology!

John Roth
Red Hill Sth VIC

Creationism

Dr Ken Smith (Vol 15, No 3) is correct in pointing out the dubious Seventh Day Adventist doctrine on which much of the CSF theory of creation is based.

Having been raised as a Seventh Day Adventist before deciding, on a rational basis, that there was no evidence for a god of a SDA or any other complexion, I feel it would be apposite to examine the life of Ellen White, the SDA prophet, on whose teachings so much of modern creation 'science' is based.

Ellen White was hit on the head by a rock at the age of fourteen, whereupon she immediately began seeing visions. She wrote a series of books purporting to be a panorama of world history, showing the guiding hand of the deity in the affairs of man. These were published under the series title Conflict of the Ages. As history they were laughable to any reader with an education who could penetrate the turgid prose. The first volume, dealing with creation, told of war in Heaven, fallen angels and the world being created specifically so man could make the right spiritual choices that would lead to his felicity. Most of this tediously unoriginal material was lifted from Milton's Paradise Lost and paraphrased in prose. A long passage in a later volume of this alleged history covered the French Revolution. This had been lifted en bloc from Carlyle's History of the French Revolution.

In 1980, researchers in the USA found a number of letters written in the previous century by White to her husband while he was travelling the mid-West, milking the snake oil/revivalist circuit. In these she refers to how well the prophecy business had paid off and how, if she could keep the 'wood ducks' convinced that she was still continuing to experience visions and communing directly with god, she would be able to retire in wealth in a few years. As a result, the SDA split in 1980 into two churches - one which continues to believe that Ellen White was inspired and one that regards her as a fraud.

Reading her books is an exercise in masochism. The prose is dense and turgid, the tone hysterical, the history often distorted in interpretation and wrong in fact. In the volume on crea-

tion, the science is non-existent. Anyone brave or foolish enough to try reading this melange of laughable history and plagiarised writings will soon reach the conclusion that everything Ellen White knew about science and the beginning of life could be engraved on the thin edge of a 5 cent piece with a chain saw.

Where does this leave the CSF? Quite simply, a significant part of the creation 'science' edifice they have erected is built on the shaky foundation of the teachings of a plagiarist and scientific illiterate. One who is now regarded as a fraud by the reform branch of the very church she founded.

Apart from wanting people to believe this rubbish, the CSF seems to want taxpayers to pay for it to be taught in schools. The situation is analogous to publicly funding Helen Demidenko/Darville to develop a syllabus for the teaching of Ukrainian history in schools.

The rantings of Ellen White are no more correct for being recycled by the creationist movement. If it looks like rubbish, and Ellen White's material certainly reads like it, it probably is.

**Neil Weedon
Glen Iris VIC**

to resist with all your strength, they then push lightly down on your arm, demonstrating that you have lost all strength in your arm. This is explained as the debilitating effect of the substance in the jar, or as an allergy to the substance. Again, how is this trick performed?

**Steven D'Aprano
Plenty VIC**

Chiropractic

Nearly every article I have read on chiropractic starts with a historical introduction along the lines of "...the first chiropractic adjustment was performed in 1895 by Palmer on Harvey Lillard, a janitor who claimed to have been deaf for 17 years after his back gave way. Lillard's hearing was restored after Palmer's manipulation of his back."

In the absence of any connection between the auditory nerves and the spinal nerves, I would like to know what evidence, other than hearsay, exists to support this extraordinary claim.

**Harry Edwards
Newport NSW.**

I Want to Know

Osteopathy

Almost every issue of *the Skeptic* has some mention of naturopaths, chiropractors and other alternative medical techniques. However, I cannot recall reading anything about osteopaths. A family member has come home full of enthusiasm after seeing an osteopath. Should I be concerned? Is there anything medically effective about osteopathy, or is it just massage with a fancy name? This osteopath generated great heat from his hands by just laying them gently on the patient's body. How is this done?

There is also a trick which I have seen naturopaths do where they ask you to hold a jar of some substance (eg peanut butter). After asking you

Ozone

I don't remember when the hole in the Ozone layer was first detected - about 1975?? However the question that often bothers me is - what evidence is there that hole occurred first only in recent times (ie since we started to use CFCs and similar gases), and hasn't been a permanent atmospheric phenomenon since ancient times? I'm prepared to accept that it is theoretically possible that CFCs are contributing to the problem, but ... when did the hole start?

**Jim Alexander.
Broadbeach Waters QLD**

Kudos

In our last issue, James Gerrand reviewed the book *Higher Superstition: The Academic Left and its Quarrels with Science*, by Gross & Levitt. In the review, James made an approving reference to David Williamson's play, *Dead White Males*, which addresses the same issues covered by the book. He sent a copy of the review to David Williamson, which drew the following reply, which James has allowed us to publish.

Dear James Gerrand,
Thank you for sending me a copy of your review.

I couldn't agree more with the sentiments and reasoning your review exhibited. The post structuralist sham deserves to be exposed for what it is - a return to the mysticism of the dark ages. It's a crime against the ideals of education that it has infected so many disciplines.

Keep up the good work.

Best regards

David Williamson
Paddington NSW

And for those who have not yet seen *Dead White Males*, we can only recommend it as up to David Williamson's usually high standards. And a bloody good laugh to boot. **Ed**

Compliments of the Holiday Season to all our Readers

About our Authors

Kathy Butler, President of Victorian Skeptics, scientist, wife, mother, is a woman of parts, many of which are mentioned in *Gray's Anatomy*.

Vince Butler, Publicity Officer of Vic Skeptics and Presidential Consort. His story of lust and intrigue in the presidential court will soon be featured in a weekly women's magazine.

Dr Dale Chant's PhD in Ancient Greek stands him in great stead as a computer programmer and secret punk rocker.

Harry Edwards, when not lying around in hospital, neglecting his duties, is Secretary of Australian Skeptics and Editor-in-Ordinary of *the Skeptic*.

Peter Johnson, cartoonist, is an inhabitant of South Australia or some equally remote home of alien entities.

James Gerrand, founding Secretary of Australian Skeptics, is a retired aviation consultant and inveterate reader of the sort of books we would all like to read if we had the time.

Dr Colin Groves, of the ACT Skeptics, is an anthropologist at ANU. His theory that all life on Earth began at 9.00 am last Tuesday has not gained wide acceptance in the academic community.

Dr Colin Keay, President of the Hunter Skeptics and astronomer, would like it known that he pronounces his name in the regular way, not like a section of the lower intestine.

Greg Keogh, Vic committee member, is a computer expert, as if you couldn't tell. Close personal friends assure us his bark is worse than his bite.

Allan Lang, Editor of *The Southern Skeptic*, finds it hard to believe anything printed in black and white. He is credited with the invention of the cult of Stanism and holds a Masters degree in Creative Typographical Errors.

Michael W Lilliquist works at the neurobiological laboratory of the University of Texas at Austin. He is an example of the good that can come from the Net, because that is where we met him.

James Lippard, philosopher, committed creationist watcher and impeccable collector of facts, is also the Internet representative for *Skeptical* magazine, published in California.

Tim Mendham, former Editor of this publication and unreconstructed flower child of the 60s, denies that he is entering his desuetude, but is fooling no one.

Dr Ralph Molnar is a palaeontologist with the Qld Museum and a member of Qld Skeptics committee. As a dinosaur expert, he is awaiting Harry Edwards' autobiography with barely concealed excitement.

Dr Steve Roberts, Secretary of the Vic Skeptics, knows more trivia than can possibly be good for him. We suspect he abducts aliens in his spare time.

Geoffrey Sherrington is a scientist who seems to know a suspicious amount about art. Could he be a plant?

Tammi T, mystery cartoonist, is saving up to buy a second name.

Sir Jim R Wallaby's secret identity as a mild mannered reporter on a great metropolitan daily is known only to his fiancée, Lois.

Hans Weiler is a retired statistician. If we say any more, we will be wrong, so we won't.

Dr Anthony Wheeler is a science teacher in Central Queensland. Surrounded by sugar cane fields, he denies that he is leading a rum existence.

Barry Williams, Editor-in-Chief of *the Skeptic*, is one of the many strange fossils to have been collected by Alex Ritchie.