

the skeptic

VOLUME 25, NO2

WINTER 2005

A JOURNAL OF FACT AND OPINION

MEDICINE

ALTERNATIVE

**IS THE
ALTERNATIVE
THE
ALTERNATIVE?**



ACCOUNTABLE

**NOT
ACCOUNTABLE**

the Skeptic

Vol 25, No 2
Winter 2005

ISSN 0726-9897

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Cover art by Charles Rose of Cogency

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No Alternative to Medicine

Because we are highly vocal in our Skepticism about what its proponents style ‘Complementary and Alternative Medicine’ (CAM) our critics from that sector claim that we are uncritical supporters of orthodox (or what they style allopathic) medical practices. Nothing could be farther from the truth; recent revelations about continuing unhealthy interactions between pharmaceutical companies and some medical practitioners, concerns us as much as they do anyone else.

Proponents of CAM like to use such revelations, or the problems in various state health systems and even the fact that one of the world’s worst mass murderers, Harold Shipman, was a doctor, to assert that the world of orthodox medicine is incompetent, corrupt or worse. And, of course all these factors do occur within the practice of medicine, just as they do within the practice of complementary and alternative medicine — as fallible human enterprises it would be remarkable if it were otherwise.

But that is not our argument with CAM; our concern lies not in the fallibilities of the individual practices or practitioners, but in the underlying principles and methodology by which each modality goes about its business.

What we now know about orthodox medicine comes at the end of centuries of research into physiology, pharmacology and pathology. It has suffered from many false starts and trips down wrong paths, much has been discovered by trial and error, but its successes have accumulated and, although it is still a far from perfect science, it is nonetheless a scientific enterprise — it is evidence based.

The path taken by CAMs has been quite different. Usually they begin with an idea, often postulated by one individual, and that idea remains fixed at the core of the modality, rigid and

unchanged by new and better information. Far from being scientific, it more nearly resembles religious belief — it is faith-based.

The alimentary, cardiovascular and lymphatic systems can be demonstrated to exist; chakras, meridians and the like cannot. The germ theory of disease has been established by rigorous scientific inquiry; the law of similars and the effects of dilution aided by succussion (at the heart of homeopathy) has no such support.

Further potential dangers from unregulated and untested CAM emerges not from what their proponents claim to know, but from what they clearly do not know. More and more cases are emerging of people suffering serious complications from the interaction between legitimately prescribed medications and self-prescribed ‘alternative’ treatments — people who have been misinformed about the effects and safety of ‘natural’ remedies.

This issue contains many items that address these problems and we will continue to be highly critical of complementary and alternative treatments until they are properly regulated and their practitioners held to the same standards of accountability that apply to medical practitioners. In conscience, we can do no other.

* * *

Eagle-eyed readers will notice something else quite different about this issue. Skeptics are often characterised by our opponents (and even, on occa-

** A task made no easier by being the object of desire of The World’s Most Friendly Cat, whose keyboard interpolations can render my most profound observations into incomprehensible gibberish — fortunately Shakespeare and Dickens didn’t have to put up with this sort of thing.*

sion, by our friends) as “grumpy old men with beards”, a charge that is not entirely without foundation (although grumpiness is not necessarily a widespread condition among our leading lights and beards are no longer obligatory in the best Skeptical circles).

This issue might help to dissipate that impression in that almost half of its content was written by women. This is not an indication that we have suddenly been stricken by a plague of political correctness, but simply stands as a tribute to the skills of a number of very talented and dedicated Skeptics, none of whom could grow a beard without very large infusions of unnatural hormones.

* * *

Writing the Editorial is usually the most difficult part of producing each issue of the Skeptic*, though this issue, with its concentration on various methods of promoting good health, was not quite as difficult as most.

Editorial writing can, on occasion, bring some degree of personal satisfaction to the writer. Therefore, I would like to thank the many kind readers who communicated complimentary comments on the Editorial about reactions the Boxing Day tsunami in the Summer issue.

I would also like to acknowledge those who drew my attention to my confusion regarding “complimentary” medicine in the previous issue, when the text showed that I obviously meant to say “complementary”. I hope I have got it right in this one. (I will soon be petitioning the Department of Lexical Affairs to have one of these confusing words excised from our language forthwith.)

Barry Williams

Around the Traps

Oops!

On the AiG web site, in an article dated April 12, the Managing Director of the Answers in Genesis sales and marketing organisation, Dr Carl Wieland, took it upon himself to deliver an award winning homily to his faithful flock under the heading “Rushing in — where wiser heads might not”. It began as follows:

One of the more annoying habits of the vociferous anti-creationist lobby ... is to pontificate on matters concerning creationists in a way that demonstrates that they have not even read the leading1 creationist literature (or perhaps they have read it, but think that knocking down straw men is justified to promote their agenda).

His lengthy fulmination about an article on the evolution (or otherwise) of the AIDS virus, was not what prompted our nomination of him for an award. That comes in the final paragraph of the sermon (or sales pitch as it could more properly be called) which reads:

...I highly recommend the DVD From a Frog to a Prince. It features both creationist and evolutionist experts. This includes the famous (and ardently atheistic) evolutionist Professor Richard Dawkins. Watch what happens when this ‘Devil’s Disciple’ (Dawkin’s [sic] own term for himself) is asked to provide one single exam-

ple of the sort of change in a living thing which one would expect to have hundreds of examples of, if bacteria really have turned into basketball players.

We passed this libellous twaddle to Richard Dawkins, the distinguished Charles Simonyi Professor for the Public Understanding of Science at Oxford University, who responded as follows:

... By the way, the article says I call myself a ‘Devil’s Disciple’. This is completely untrue. I wrote a book called A Devil’s CHAPLAIN in which I mentioned, in passing, Bernard Shaw’s ‘Devil’s Disciple’. Even my Devil’s Chaplain is not me, as I make very clear in the book itself.

A fact that any astute reader can easily verify by reading this fine collection of essays (Weidenfeld & Nicolson, London, 2003) on creation ‘science’ and other idiocies by Richard Dawkins, widely applauded as one of the most literate of writers on scientific subjects. His single mention of a “Devil’s Disciple” comes on p9 in a reference to Shaw’s *Preface to Back to Methuselah*, while the title of the book (and of the first essay) comes from a sentence in a letter Charles Darwin wrote to his friend Sir Joseph Dalton Hooker in 1856, which says:

What a book a Devil’s Chaplain might write on the clumsy, wasteful, blundering low and horridly cruel works of nature.

Of course, Shaw and Darwin were proposing these hypothetical entities as purely literary devices, not as statements of belief. At no stage has Professor Dawkins assumed for himself the title of Devil’s Disciple, nor indeed of Devil’s Chaplain, which is hardly to be wondered at; for an atheist it would be highly inconsistent to deny the existence of gods while espousing the existence of devils.

He went on to suggest:

Since the whole point of the article is that evolutionists misread or don’t read creationist literature, perhaps something could be made of this?

As we have done here, by nominating Dr Carl Wieland for the inaugural Foot Shooting Pot Kettle Mote Beam Own Petard Award for pontificating while demonstrating so convincingly that he has “not even read the literature”.

Notes

1. Readers accustomed to the literary style of creationists might here be forgiven for assuming that the good doctor committed a typographical inexactitude, in neglecting to add a ‘mis’ to the word ‘leading’, but we will let that pass².

2. The above footnote is irrelevant to the story, but as Dr Wieland chose to include one in his turgid tract as an explanation of the term “Blind Freddie”, we felt we could not allow him to stand alone in interpolating pseudo-academic devices, and have responded in kind.

How humiliating

As Skeptics we have all noticed the phenomenon of most psychics and similar necromancers claiming in their self-promotion to be “the most famous”, “world renowned”, “most accurate”, etc, purveyor of their particular practices. However, not all psychics, it appears, are quite so immodest, as several readers have recently brought to our attention with what appears to be a new wrinkle in psychic advertising.

This takes the form of an unnamed practitioner using the tag line “Little Known Psychic Humiliates Skeptics” and then going on to claim that she tells you exactly what she sees, even if they are “facts that you’ll dread”. A quick straw poll around the Skeptics Kremlin reveals that, while she is accurate in her self-description as “little known” (no one had heard of her), humiliation was not among the emotions felt—astonishment, perhaps, ennui, almost certainly, but no traces of humiliation.

If she is telling the truth (about always telling the truth) we can only offer our congratulations to a psychic for breaking entirely new ground. We would like to check her claims of “amazing accuracy” but at \$5.95 per minute, we would far rather spend our money on riotous living.

Balancing act

We don’t much like taking pot-shots at one of our favourite media outlet (Auntie ABC, in which we have many supporters), but sometimes it is sadly necessary. Recently we were talking to one of Auntie’s nephews about a project, when we happened to mention the appalling *Second Opinion* shown at 6.30 on Tuesday evenings. This blatant commercial for untested pseudomedicine rankles with most Skeptics, but our correspondent said that it was done because at the ABC had to “aspire to balance”.

We are not against balance *per se*; on balance it could be seen as an admirable trait in a broadcaster, but surely some common sense must be

applied. So let us test the ABC’s commitment to this attribute; any time you see or hear a Police Commissioner on air talking about increasing or decreasing crime rates, please phone Auntie and demand that equal time be given to the General Secretary of the Amalgamated Burglars and Housebreakers Union, or a spokesman from the Licenced Drug Smugglers and Dealers Association. All in the interests of balance, of course.

The games they play

Meanwhile, the denizens of Bunyip Towers are anxiously awaiting the beginning of the Ashes Series, with a certain apprehension that the broadcast on SBS TV will be replete with Polish subtitles.

AUTS?

A funny thing happened at Skeptics Central the other day. Our venerable Editor was busily opening a recalcitrant parcel, using his trusty Swiss Air Force Knife, when the phone rang. By some totally inexplicable concatenation of circumstances this led to his inflicting a wound on the point of his left elbow. In the spirit of scientific enquiry we have rigorously endeavoured to replicate these events, so far without success. A case of Actions Unknown to Science, perhaps?

In passing

Late last year we recorded the passing of a number of individuals from overseas with whom Skeptics had found themselves in disagreement.

Since then it has continued to be a bad time for practitioners of the ‘psychic arts’ in Australia, with Athena Starwoman, Margaret Dent and Kerry Kulkins all passing into another plane since last December. Each of them had been mentioned in *the Skeptic* in regard to their particular claims and practices, but we are nevertheless saddened by their deaths.

But not rose-coloured

A Skeptic reader, architect Kin Wong, delighted us with this recent wry observation:

Just a note to say that you people look at the world through spectacles.

Wish we had thought of that first.

Getting the message out

Of late we have gleaned an unusual number of new subscribers from among people who have read *the Skeptic* in the local library, or in their doctor’s waiting room. Never a group to ignore new methods of spreading the Skeptical message, we now invite readers to let us know if their local library would benefit from a gratis subscription. Also if you are a doctor, dentist, bank manager or anyone else who has a waiting room where the trepidacious public gather, drop us a line if you would like an extra copy (no charge) to place therein.

Reflected glory

Medical folk among our readers who subscribe to *Australian Doctor* might be interested to learn that the face of the cheerful young lad (below) who appears in Meat and Livestock Corp advertisements, asking the question, “Is there something else you should prescribe for him?” and extolling the virtues of lean meat three times a week, belongs to one Christopher Joyce. He also happens to be the younger grandson of our Editor.



Bunyip

The Amazing Meeting 3

Enlightenment from the City of (Neon) Light



Karen Stollznow, a linguist and committee member of NSW Skeptics, is presently a Research Associate at UC Berkeley, in the USA

And God said, Let there be neon light: and there was Vegas.

From all over the world, hundreds of the faithless made the pilgrimage to Las Vegas to attend *The Amazing Meeting 3: From Eve to Newton, the Apple of Knowledge*. A veritable ark of 562 skeptics congregated inside the Stardust Resort and Casino along The Strip, ready to venerate such skeptical icons as Richard Dawkins, Michael Shermer and of course, our skeptical God, the Amazing Randi. What follows is a privileged account of the proceedings of this year's meeting. A breach of confidentiality, as we all know that what happens in Vegas, stays in Vegas.

The 2005 meeting was held in conjunction with the Skeptics Society and promised a most illustrious line-up. It was with much delight that I seized the opportunity to represent the Australian Skeptics, by sheer grace of my geographical proximity (People will look at you very strangely when you announce that you're going to Vegas... for a conference!)

Despite a lingering cold (strangely, the homeopathic pills weren't working), after having a Bourbon and Lemonade spilled on me in the aeroplane and spending

five minutes in a smoke-filled casino I already smelled of Vegas and was ready to take on Sin City! Why, this was my second trip here and this time, I was legal!

Alas, I was only one of four true blue Australians in attendance but not the only Aussies in town. Enormous billboards promoted the sun-kissed visit of 'Australia's Thunder from Down Under' men and their counterparts, the 'Aussie Angels - The Wonders From Down Under'. I had hoped they would boost the Aussie contingent at TAM3 but they must have misplaced their tickets during their act.

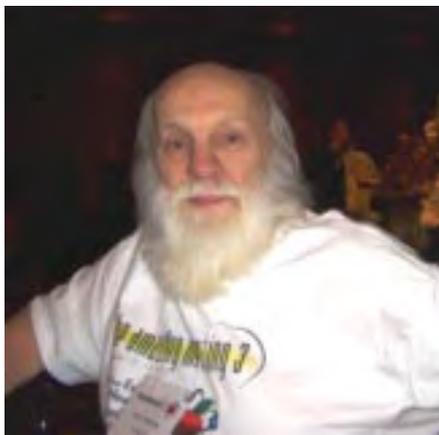
The meeting was held over the Martin Luther King Junior holiday and the 'bright light city' was bustling with life. While the punters flocked to 'Lost Wages', this gambling capital of the world, TAM3 was an ironic shrine to skepticism amidst the lucky charms and petitioning of Lady Luck. As one R. E. Shay once said, "Depend on the rabbit's foot if you will, but remember it didn't work for the rabbit."

Reception

I arrived just in time for the reception, a lavish banquet for the attendees. With a plate of nibbles, I gravitated towards a lone gentleman

of Barry Williams-like stature. I had happened upon Jerry Mertens, Professor of Psychology at Minnesota's St Cloud State University, elder of the Minnesota Skeptics and coordinator of the St Kloud ESP Teaching Investigation Committee (SKEP-TIC). Jerry has assisted in challenges and investigations with James Randi himself, notably testing (one of) the world's first perpetual motion machine(s)!

Fortuitously, Jerry turned out to be a connection to the skeptical inner sanctum. Within an hour, I was acquainted with several skeptical high rollers, including Michael



Jerry Mertens

Shermer and Joe Nickell. I then hit the jackpot with a personal introduction to Guru Randi. "Randi, this young lady would like to touch your robe!" Randi graciously consented to the request but I settled for a hug and a kiss. Presented with a photo opportunity I had to crouch down, proving that although 'Amazing' is an apt and literal epithet, Randi is larger-than-life in a purely figurative sense only.

After a lavish power dinner, we retired to the conference hall to be treated to a complete performance of Julia Sweeney's

(www.juliasweeney.com) introspective *Letting Go of God*. This was a story about *losing* religion, the inverse of the standard saga non-believer finds God. This is *The Road from Damascus*. Sweeney's monologue traced her pilgrimage from faithful Catholic to disillusioned



Julia Sweeney

believer to critical thinker and atheist, delicately labelling herself a 'naturalist'. Sweeney's doubts were raised by her profound assessment of an unwittingly deep question asked of her by visiting Mormons, "Do you believe that God loves you with all his heart?" Sweeney was astonished at their absurd rationalisation for their faith, before reasoning that, to the outsider, Catholicism is equally incongruous, "I'm just used to the Catholic stories".

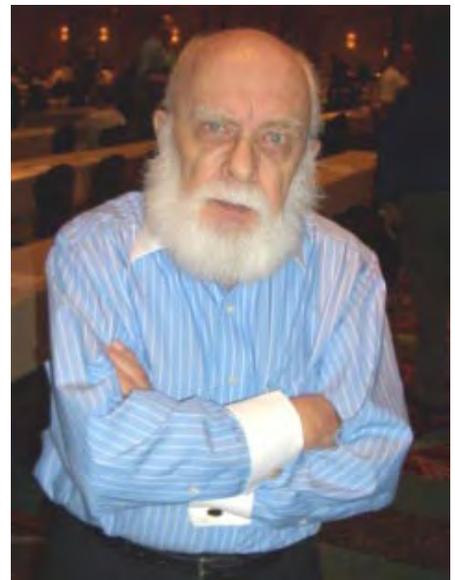
This quest for enlightenment saw her dabble in Buddhism and the spiritual medley that is the New Age, eventually leading her to science. This play is a turbulent ride for the emotions. At times hilarious and



Michael Shermer

outrageous, her story is unfailingly insightful and honest yet never condescending. Sweeney's outstanding performance and poignant tale earned her a standing ovation, rousing even the most notorious curmudgeons in the audience.

During registration, I had met a few members of the on-line JREF forum, (<http://www.randi.org/vbulletin>) where the men are skepdudes and the women are skeptic chicks. On this first night of the conference, the JREF skeptic chicks held a pyjama party. No boys allowed. I'm afraid, the Vegas confidentiality pact must be honoured at



The Amazing Randi

this point and any accompanying photographs would thrust this journal into another category altogether!

Day 2

On the second day of TAM3 creation, Randi gave us Phil Plait. The Bad Astronomer was not at all bad as MC for the day. Opening the day's proceedings, Phil spoke of his encounters *en route* to the conference. The people having a stiff breath of oxygen at an 'oxygen bar' in the Las Vegas airport. A chiropractic practice boasting "1000 hours of manipulation" and the "terror researchers" who claim to have predicted the December 26th earthquakes and tsunami.

First up was Michael Shermer

who introduced his latest book, *Science Friction: where the known meets the unknown*. While we've all seen the images of the reputed Jesus Christ on a tortilla and the latest comestible deity, the Virgin Mary Grilled Cheese Sandwich, Shermer treated us to a slide show of other popular pareidolia; the reputed 'Face on Mars', Jesus in a gas nebula, the Jesus tooth filling and a two-storey high apparition of the Virgin Mary on a building façade in Florida. As for the crusty Virgin, Shermer concluded that the flirty, out-looking kewpie doll image doesn't correspond with the standard representation of Mary, usually depicted as demurely casting her gaze downwards.

Shermer continued with popular lore, explaining the incidence of confirmation bias. He cited several Beatles myths, namely the "Paul is dead" rumour and the backmasking stories of hidden messages revealed by playing a record backwards. As our friend David Oates will attest, backwards music or speech can often reveal word-like sounds. (Although Oates would maintain this is deliberate rather than interpretation. I was once delighted to discover that, played in reverse on a four-track, the fade-out of the Beach Boy's innocent *Wouldn't it be Nice?* sounds like "Beelzebub"!)

Shermer relayed the contents of a letter from comic book writer and illustrator, John Byrne, to further demonstrate cognitive bias. Known as the "Byrne Curse", Byrne joked that his works 'foretold' a Japanese earthquake, a New York blackout and the Challenger tragedy. Most ironically, a *Wonder Woman* comic was published, bearing the title "princess Diana dies" (Diana was Wonder Woman's real name). As Byrne states, "that issue went on sale on a Thursday. The following Saturday... I don't have to tell you, do I?" Byrne finishes with: "My ability as a prognosticator would seem



Rick Maue and Francis Menotti

assured—provided, of course, we reference only the above, and skip over the hundreds of other comic books I have produced which featured all manner of catastrophes, large and small, which didn't come to pass." Shermer classified such claims as "predictions after the event" and a phrase with which most of us are familiar, to "remember the hits and forget the misses".



Friggatriskaidekaphobia Nurse

Magician and mentalist Rick Maue owns and operates Deceptions Unlimited (www.deceptionsunlimited.com), a trading name that causes no end of trouble at the bank. Maue jokes to the tellers that his company is "a division of Enron". Professing to "lie for a living", Maue has been designing and performing theatrical séances since 1976. He cited a tabloid headline, "Husband's dead wife leaves message on his answering machine". Musing that this is obvious proof that it is

possible to communicate from the other side, Maue wondered that the deceased didn't have the good sense to call her husband when he was home! Maue notes that there are three categories of séances.

1. A séance where all the participants know the sitting is false;
2. A séance where only the medium knows the sitting is false; and
3. A séance where all the participants believe in the proceedings.

Maue concluded with the astute observation that Hollywood-style séances are created with the purpose to scare. Conversely, John Edward *et al*, today's TV equivalent of séances, are "safe, happy places for spirits".

Margaret Downey founded the Freethought Society of Greater Philadelphia and the Anti-Discrimination Support Network but is better known as the Friggatriskaidekaphobia Nurse. In this incarnation, Nurse ministers to the superstitious and there's good news — it's a curable disease! Employing skeptical cognitive behavioural therapy, Nurse challenges the credulous to confront their superstitions and immerse themselves in the irrational. Her patients are treated by learning to limbo under ladders, open umbrellas indoors, to stab voodoo dolls and smash mirrors! Of course, this operation is a non-prophet organisation. Interestingly, Downey has had the most media

success in her ventures by defining superstitions as discriminatory, eg, labelling black cats as bad luck is negative stereotyping.

Magician and author, Andrew Mayne, offered a practical guide to communicating skeptical thinking. Mayne explained that skeptics should “go with what we know” when disseminating critical thinking, citing Scientology survivor Dan Garvin, now an activist against cults. Mayne advocates that we communicate skepticism with honesty, integrity and simplicity. He states that relevance is important, for example, discussing alternative medicine with seniors. As skeptics, we should firstly decide, who needs the message? Then, how can we reach these people?

Acclaimed magician and prominent Skeptic Jamy Ian Swiss noted the parallels between magicians and charlatans, classifying himself as “honestly dishonest. Because we need sneaky guys to catch sneaky guys”. Swiss is skilled in replicating ‘paranormal’ abilities, defining a ‘psychic’ as “a performance artist with an illegitimate purpose. Is a psychic cheating or should we throw out everything we’ve known since Galileo?” Swiss questioned why ‘spoon bending’ should even be interpreted as evidence of the paranormal.

The magician proceeded with a brilliant display of mentalism and misdirection, explaining that we are easily fooled because we are “naturally magical thinkers”. Using only ‘mental powers’, Swiss slid a ring along the length of a pencil. He placed a dice and coin in a sealed box, shook it with ferocity, then ‘read’ the facing number and coin side, through the solid wooden lid! For his grand finale, Swiss tossed out romance novels to the audience, chosen because “there isn’t the remotest chance that anyone’s read them!” A few audience members were directed to select a page and single word. Swiss proceeded to accurately ‘read’ this back to the astonished audience! I observed that, like psychics, Swiss and other magicians constantly offer



Jamy Ian Swiss

the disclaimer, “I won’t always be accurate”. Unlike the psychics, the magicians usually are!

Off on a slight tangent, the coin-reading trick reminds me of a prank a visually impaired friend likes to play on people. He constantly refutes the misconception that the remaining senses of a visually impaired person are heightened, compensating for the lacking sense. People often ask him foolish questions such as, “how can you shower?” or the most common, “how can you tell what money you have?” So he devised an answer. Unlike our beautiful Aussie notes, US notes are of equal dimension but are they of equal weight? “Being blind, my sense of touch is acute, extremely sensitive



Teller speaks

and I’ve trained myself to differentiate between notes, based on their weight. The larger the denomination, the heavier the bill.” Impressive stuff... and the inquirer walks away in amazement! The reality is much more mundane, yet still clever. When he goes to the bank, this fellow asks the teller to bundle the notes according to their value. To distinguish each bundle, he has a formula for folding each set of notes. He then relies on the honesty of cashiers so that he can continue to organise his notes into bundles based on value.

Penn & Teller bounced onto the stage to present their unique blend of magic, skepticism and violence. Randi became their victim as they performed a trick upon him, leaving him in handcuffs and chained to an anvil. A Q&A session followed, mostly focused on the duo’s television series *Bullshit!* Penn & Teller bemoaned the lack of skepticism on television and revealed that a certain media source demands ‘balance’ (according to their biased standards), therefore TV psychics should be represented as “accurate at least 20% of the time” (I inwardly mused that, without this help, psychics would be right 0% of the time). Penn told us of his realised prediction, that John Edward would try to capitalise on the 9/11 tragedy by ‘contacting’ the victims. Thankfully, this show never went ahead in the end. There was a hush when Teller spoke, quietly and articulately. He also confirmed that, yes, that’s his voice in the episode of *The Simpsons!*

Penn gave us some inside info on *Bullshit!* He quipped that the show is “fair and biased”. Despite the countless insults hurled at them, the interviewees are never taken out of context! “We’re disgusted and ridicule them but we’re not distorting them” explained Penn. When asked about the public’s response to the show, Penn relayed that they receive as much hate mail as fan mail. He then shared an anecdote. Following the airing of the *Alternative Medicine* episode, a chiropractic organisation vowed to boycott both Penn &

Teller and Showtime. Amusingly, the group sent 30 ticket holders to a Las Vegas P&T show to tell them this! Another time, a group of creationists threatened to sue the show, with the ironic complaint: "you have exposed our point of view for being wrong." Enough said!

In closing, Penn revealed some of the topics in the upcoming third series of *Bullshit!* The episodes investigate circumcision, politically correct speech on university campuses, hair loss, the moon landings, freedom, figures such as Ghandi and Mother Theresa and "debunking 'mother's advice', where we get kids to eat heaps of stuff then go for a swim. Then we get them to eat food off the ground".

Panel discussion

Journalist, author and political commentator, Christopher Hitchens, is probably as infamous for his demeanour as his views. Imagine him sitting at an illustrious panel consisting of Randi, Shermer, Penn & Teller, Swiss and Sweeney, coolly chain-smoking while his co-panelists voiced silent protest only with their watering, blinking eyes. This seminar was a verbal opinion piece and at times Hitchens wavered perilously close between skeptic and cynic. Among his anecdotes was a tale detailed in his essay 'The Devil and Mother Theresa'. At the request of the Vatican, Hitchens testified against Mother Teresa at the hearings on her beatification. "The present Pope has abolished the office of 'Devil's Advocate', so I was invited to represent Satan *pro bono*."

During the panel, Hitchens best summarised the collective sentiments of the room with the quips "this is not God's work, nor Galileo's" and "we have no bishops, we have no martyrs". He also advocated a "pre-emptive strike against pseudoscience and the paranormal". Penn admitted he "defers to Christopher's judgement on all matters". Then, throughout the panel, Hitchens comically endorsed Penn's statements.

There were many pearls of wisdom. Sweeney revealed that her



Christopher Hitchens

experience with religion is actually a common one to which many can relate. She urged us not to shy away from but to engage in skeptical discussions, "they're not as confrontational as we might think". Penn argued a point that I made in the August 2004 Australasian Science magazine, that, of skeptics, there are more of us than you might think and from various sections of society. As Penn puts it, "they just don't wanna hang out with you!"

Another point was discussed which I have previously made, that even those who profess to be skeptical, have 'soft spots' for some paranormal concepts. I illustrated this with the Neuro-linguistic programmer who claimed to be "a skeptic" while the panel cited various examples; Randi told us of the patron who scoffs at UFOs but believes the "Bermuda Triangle is scientifically proven". Sweeney told us of an audience member at her show who sneered at the notion of heaven but vehemently believes in reincarnation! Lastly, the panel spoke of those who promise to petition God on behalf of us heathens; "you'll be in my prayers", "we'll pray for you to reach Christ" and "you may not be interested in Jesus but he's interested in you!" Randi concluded the session with an anecdote of a violent letter he once received, replete with threats, hellfire and brimstone, the author signing off with, "Yours in Christ".

Magician and inventor of optical illusions Jerry Andrus deserves a special mention at this point. Throughout the conference, Andrus tirelessly attended to a display of his

astonishing exhibits in the hotel foyer, demonstrating his many tricks to a crowd that flocked to him.

Andrus proves that we can be deceived by our perceptions. Visit Andrus' website at <http://www.jerryandrus.org/>.

That evening, the JREF Forum members retired to a suite at the Stardust for the intriguing-sounding "Chocolate Challenge". This turned out to be an unempirical 'test' of various international choccies while the bulk of us were left as salivating witnesses to the proceedings. Something foul was afoot as suspiciously, the 'winning' chocolates disappeared! With so many magicians present, there were many suspects. I posit that gluttony and not sleight of hand was at play. With the crooked Phil Plait as a tester, my money is on him!

Day 3

On Saturday, as I trudged blearily through to the conference breakfast at 7.30am, the punters were already at their pokie stations. Joe Nickell commenced the day's proceedings with an exciting seminar detailing some of his exploits as CSICOP's Chief Investigator. Nickell is a prolific writer on claims of the paranormal, having produced the definitive work *Inquest on the Shroud of Turin*, various books of his investigations, including *Real Life X-Files*, several children's books and, of course, his numerous articles for *The Skeptical Inquirer*. Nickell claims to be the world's only full-time, paid paranormal investigator and has conducted countless high-profile explorations of the paranormal, including Oak Island's Money Pit, the Peruvian Nasca lines, the Amityville Horror, Benny Hinn and the James Ossuary (touted as the mortuary box of Jesus' brother).

He has engaged in many fascinating activities, including a covert investigation of the notorious spiritualist institution Camp Chesterfield. He made a reproduction of the Turin Shroud using an image of Bing Crosby, known as the 'Shroud of Bing', and has produced an 'alien

time line', an iconography of depictions of aliens over time. Nickell revealed a gun, purportedly once the property of Daniel Boone, to be a fake and examined the 'Jack the Ripper diaries' in Chicago, where the "ink was barely dry". A highlight of his successful career was exposing John Edward red-handed in the act of a hot reading! Professional and knowledgeable, Nickell always employs scientific rationale and conducts his work with honesty and fairness.

Fancying myself as somewhat of an Aussie Nickell, I approached him and held several enjoyable conversations over the course of the convention. He praised my use of the term 'investigate' to describe our undertakings, rather than the negative 'debunk'. Nickell was fondly reminiscent of his 2000 visit to Australia, which allowed him a glimpse into Antipodean legend; the 'haunted' Hyde Park Barracks, an unsuccessful 'yowie' search in the Blue Mountains and Campbelltown's Fisher's ghost. In the footsteps of Houdini, Nickell made a memorable pilgrimage with magicians Peter Rodgers and Kent Blackmore to attend the neglected Rookwood grave of spiritualist William Davenport. Nickell has a great deal of respect and admiration for our organisation and asked to be made an honorary Aussie skeptic! The general consensus of everyone I spoke with was that the Australian Skeptics have an enviable and cohesive organisation — unlike the dramas of the many US groups!

A toast to the unexpected

There was an unexpected visitor to TAM3. Appropriately, during lunch, we had a visit from the Virgin Mary Cheese Toast, on loan from its owner, on-line casino GoldenPalace.com who paid US \$28 000 for the 'icon'. The former owner has since sold the "Virgin Mary Cheese Sandwich Official Holy Pan", a frypan, for a further US \$6000.

Dawkins

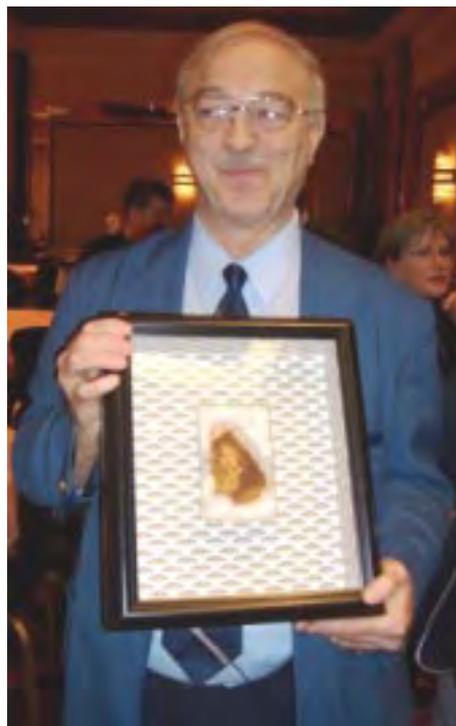
Richard Dawkins was an elusive,



Richard Dawkins

Salinger-like figure at TAM3. The featured speaker of the meeting, he appeared on-stage, presented a seminar and was interviewed by Randi before making a silent exit, *en route* as he was to the Galapagos Islands for a research sabbatical.

The conference hall was packed out for his presentation. This was the session that everyone eagerly awaited. Erudite, witty and intelligent, Dawkins swiftly charmed the room. Dawkins proposed the concept of the "perinormal" as opposed to the paranormal. His claim of coining the term was proven when an attendee 'googled' perinormal and found it



Joe Nickell and Virgin Toast

only existed as a typo. Dawkins defined the paranormal as "something that lies beyond the realm of science" and gave the perpetual motion machine as an archetypal example. The perinormal, peri- meaning 'around', are those concepts that lay "beyond existing science in an area surrounding 'normal' as presently understood". Dawkins cited as an example, the idea of modern technology as it would have appeared to past centuries, mentioning Lord Kelvin (William Thomson) and his 1895 statement that "heavier-than-air flying machines are impossible". Dawkins reminded us that X-rays were once thought to be a hoax. He spoke of future technologies as perinormal, the potential mobile phones of tomorrow and Quantum Computing.

Dawkins discussed a range of related topics, commenting that "SETI (Search for Extra-Terrestrial Intelligence) is a respectable enterprise. We might receive contact via radio but there's a low probability of face-to-face contact". He discussed the theological implications of such contact, "we might regard them as Gods". Dawkins notes that "magicians, ie conjurors, are neither paranormal nor perinormal" and their acts "not outside science" although "some shake our confidence with their cleverness. It can be tempting to think, 'this looks paranormal'. Some are fraudulent, pretending to be other than conjurors". Astrology is "conceivably perinormal" but we have "no positive reason to think this anything other than nonsense and fraud". Faith healing, "the laying on of hands, is neither paranormal nor perinormal, it has a well-documented psychosomatic and placebo effect".

But where does religion fit in? Dawkins claims religion is both paranormal and perinormal. Paranormal facets include "the turning of water into wine, creationism and intelligent design, which is creationism in a cheap tuxedo, prayer and intervention and the notion of life after death". The perinormal is "Einsteinian religion", although

Dawkins explains that this is mainly metaphorical and labelled it as “sexed-up atheism”.

At one point, Dawkins’ Powerpoint displayed Darwin’s image on the British ten pound note. He explained that he isn’t “usually given over to patriotism but this is better than what’s on your currency”, the room laughing/cringing in agreement at the thought of the greenback’s contrasting “In God We Trust” motto. And religion was on the agenda. Dawkins opined that religion has the characteristics of a paranormal concept and should therefore be tackled by skeptics. He explained that some skeptical organizations choose not to examine religion as it is a subject that is guaranteed to “offend”.

Dawkins emphasised the importance of the search for fact and urged that skeptics rethink this stance. He quoted Douglas Adams’ 1998 Cambridge speech:

If somebody votes for a party that you don't agree with, you're free to argue about it as much as you like; everybody will have an argument but nobody feels aggrieved by it. If somebody thinks taxes should go up or down you are free to have an argument about it, but on the other hand if somebody says 'I mustn't move a light switch on a Saturday', you say, 'Fine, I respect that'. The odd thing is, even as I am saying that I am thinking 'Is there an Orthodox Jew here who is going to be offended by the fact that I just said that?' but I wouldn't have thought 'Maybe there's somebody from the left wing or somebody from the right wing or somebody who subscribes to this view or the other in economics' when I was making the other points. I just think 'Fine, we have different opinions'. But, the moment I say something that has something to do with somebody's (I'm going to stick my neck out here and say irrational) beliefs, then we all become terribly protective and terribly defensive and say 'No, we don't attack that; that's an irrational belief but no, we respect it'.



Banacheck

Dawkins closed by showing a photograph of a group of four-year-olds, each labelled according to the religion of their family. He spoke of the ridiculousness of imposing roles on children who are far too young to have developed personal religious beliefs, “we wouldn’t label a four-year-old as an atheist, would we?”

More psychics and luck

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Brenton ver Ploeg

claims. Ploeg amused everyone with details of the Randi-Geller trials and ‘finger-reader’ trial. He told an anecdote where a San Franciscan psychic charged a client \$500 for designing a love spell. This involved intertwining several pairs of underpants and placing them under her pillow as she slept at night. Surprisingly, this spell had no effect and the client sued for a refund of the psychic’s fee. The defence consulted another psychic who insisted that her colleague “had to charge \$500 or the client wouldn’t believe she could find a partner”.

Banacheck, billed as “the only mentalist ever to fool scientists into believing that he possessed psychic powers”, explains that his act employs “verbal communication, psychology and perceptual manipulation”. People ask Banacheck, “do your talents run in your family?” To which he responds, “My uncle knew when he would die but that’s nothing special. The judge told him!”

Banacheck reeled off jokes at lightning speed as he performed. Asking the audience to write down their full name and a secret, significant fact about their lives, Banacheck put John Edward to shame by detecting some obscure information; an audience member’s name and the cat they had with an insurance policy and a woman whose school friend had endured a great tragedy. Banacheck predicted a local telephone number selected by an audience member from a book of hundreds of thousands of numbers. Wearing a secure blindfold, he deduced three, peculiar objects held above his head, one being a toy wombat! “Where do people in hell tell each other to go?” he mused, as he bent forks and used ‘mental telepathy’ to ‘intuit’ an audience member’s dream.

Psychologist and magician Dr Richard Wiseman was up next. “Who is Wiseman?” asked a woman seated nearby. “He’s one of the guys who turned up to see Jesus!” riposted a passer-by, proving that all skeptics

think they are comedians. Wiseman conducts scientific research in unusual areas of psychology, including the psychology of luck, lying, magic and the psychology behind the belief in ghosts and hauntings. This led to his work as an experimental parapsychologist, testing mediums and psychics. In 1999, Wiseman created *Séance*, an off West-end show in which audiences experienced a reconstruction of a Victorian séance.

Wiseman gave an energetic and hilarious performance, tricking us all with a series of optical illusions as he spoke of 'luck and rationality'. Wiseman has conducted tests with people who report extraordinary good luck, those who consistently win lotteries, etc, and those who purport to be exceptionally unlucky. One subject claimed to have a "jinxed car" that was involved in eight accidents over a fifty mile journey! Was the paranormal afoot here? Apparently not. However,

Wiseman found that there was a "massive difference in their psychology". Those who saw themselves as 'lucky' happened to consistently avail themselves of opportunities while the habitually 'unlucky' consistently failed to identify opportunities.

Wiseman then screened a short clip of an interview he did with *Date-line's* Dennis Murphy, where he discussed this very phenomenon. To illustrate this phenomenon at work, a poster was pinned to a board behind the pair, stating: 'DENNIS! SPOT THIS TO WIN \$1000!' Despite Wiseman's exaggerated hints, poor Dennis overlooked this opportunity, thereby proving himself to be one of the unlucky ones!

Randi Q&A

The penultimate day ended with a Randi Q&A session, where he spoke at length about his standoff with



Phil Plait and Richard Wiseman— the Evil Twins of Skepticism

psychic Sylvia Browne and his vision for the future of the JREF, "I hope I die at my desk. Then, I want someone to clean out my office, put a different name on the door and continue!"

On Saturday night I attended a Theatrical Séance, hosted and performed by Rick Maue and Francis Menotti. This was a cleverly-crafted, scripted performance and I was lucky enough to be invited to participate in the proceedings! Treated to an evening of skilful magic and acting, were we not candidly informed that it was drama, some would have left in belief.

The last day

Sunday, the final day of TAM3, featured an informative series of scholarly papers on a range of subjects, including teaching critical thinking, skeptical psychology and faith heal-

ing and child abuse. I came to the conclusion that, at TAM3, every presenter is of plenary speaker quality. Statistics after the event revealed that women comprised 30% of attendees. This is up on the first conference where over 90% were male (Damn! Why didn't I attend then?).

On Sunday night I caught the live Penn & Teller performance at the Rio. Randi was in attendance as a special guest. This is the ultimate magic show for the skeptic or the sadist. The duo performed tricks involving animal traps, fire eating, the infamous 'magic bullet' trick and 'burning' the US flag. Penn smashed some glass bottles then juggled the jagged bottles by their necks. All was performed to the soundtrack of Penn's boisterous appeals for critical thinking. If not a skeptical magician, Penn would have been a splendid and convincing television evangelist! Then there was the gentle artistry of Teller's graceful conjuring, as he produced goldfish from coins and pruned a single red rose by making incisions upon the shadow it cast.

TAM should be an important date on every skeptic's calendar. I urge every reader to make the trip. As I left the meeting, I said goodbye to Randi and told him "I'll be back next year". He laughed and replied, "So will I!"

Note

At the time of printing, the TAM4 dates have been finalised for 26-29th January, 2006. The meeting is to be held at the same location and premises. The JREF promise exciting new events and changes. For more info check www.randi.org. With thanks to Dean Baird and Phil Plait for some of the photographs.



Complementary and Alternative Medicine Use in the Elderly

Investigating a worrying trend among the aged

This paper first appeared earlier this year in the peer reviewed *Journal of Pharmacy Practice and Research* Volume 35, No 1, 2005. As the issues raised by the paper are very much in line with major concerns of Australian Skeptics regarding the use and promotion of complementary and alternative medicine, we sought and were granted the kind permission of the author and publishers of *JPPR* to reproduce it in its entirety.

Abstract

Recent surveys suggest that the elderly are more frequent users of complementary and alternative medicines (CAMs) than the general population, as up to 80% have reported using at least one CAM on a regular basis in the past year. Although many reasons are cited for their interest in CAMs, the elderly commonly state that CAMs are not used as 'alternatives', but rather as 'supplements' to compensate for aspects perceived to be lacking in conventional care. High-level evidence supports the use of some CAMs in specific conditions. However, their use in the elderly presents significant challenges to quality use of medicines as this population is already burdened by polypharmacy, decreased functional reserve and chronic disease. Preventing adverse

reactions and drug interactions associated with CAM use is complicated by the fact that fewer than 50% of older patients disclose CAM use to their doctor or pharmacist. This article is a guide for health professionals who wish to advise the elderly consumer on the rational use of CAMs.

Introduction

The elderly are often thought of as unlikely consumers of complementary and alternative medicines (CAMs).^{1,2} However, recent surveys¹⁻¹³ have found that they are in fact more frequent users of CAMs than younger people. Compared with about 50% in the general population, 60 to 80% of elderly consumers have declared use of at least one herbal or nutritional medicine on a regular basis.^{14,15} In addition, the number of remedies taken by the elderly is not insignificant, ranging from four to seven per day.⁹

There are myriad reasons why the elderly are attracted to using CAMs, the commonest being that these remedies are perceived as accessible, safe and effective.¹⁶ Such perceptions, however, bypass the fact that CAMs, like any medicine, are capable of causing adverse reactions and drug interactions, and more so in an older population already burdened by polypharmacy, chronic disease and decreased functional reserve.



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Consumers look to health professionals for information and advice on the risks and benefits of pursuing CAMs for their health needs. Therefore, it behoves health professionals to develop an appreciation of these medicines and know what constitutes rational use of CAMs in the elderly.

Definitions

There is no internationally accepted collective term to describe the group of products regulated in Australia as CAMs.¹⁶⁻¹⁹ In general, CAM refers to a wide range of health-related interventions, including diagnostics, therapies and medicines. Essentially, CAMs are therapeutic remedies, such as herbal, homoeopathic, traditional or nutritional medicines, which are usually available without prescription, and often supported by limited evidence of efficacy. The term 'complementary' implies that the remedy complements the patient's health needs, or is used together with conventional medical treatments. In contrast, the term 'alternative medicines' refers to remedies used in substitution for conventional treatments.¹⁶⁻¹⁸ Another term for CAMs gaining popularity is natural health products, which avoids reference to concomitant use (or not) of conventional treatment yet denotes the source, purpose and commercial nature of the medicine.^{16,20,21}

Predictors of use

Predictors of CAM use in the elderly are similar to those found in younger populations, particularly the female gender, higher education and higher income.¹⁻⁹ In a multicultural society like Australia, it is worthwhile recognising the influence that ethnicity has on CAM use in the elderly.^{4,12,22-27} Flaherty *et al* found that elderly Japanese were more frequent users of CAMs than elderly white Americans, who were in turn more likely to use CAMs than elderly African-Americans.²² Najm *et al* found that elderly Hispanic Americans were high users of dietary supplements (56%), home remedies (25%), and traditional healers/*curanderos*' (8%), whereas elderly non-Hispanic Ameri-

cans were higher users of chiropractic (42%), massage (20%), vitamins (20%), and dietary (17%) modalities.¹³

The burden of chronic disease has also been associated with more frequent use of CAMs in the elderly. In a study of older persons with arthritis, those who reported more severe disease or poorer health were more likely to use CAM.³ In a study comparing the use of CAMs in individuals with and without diabetes, those aged over 65 years with diabetes were 1.6 times more likely to be using CAMs than those without diabetes.²⁸ In surveys of cancer patients, over 80% declared the use of CAMs in their treatment.²⁹

Reasons for use

There are numerous reasons given in the literature for why older consumers access CAMs for their health needs.^{16,20,21,29-34} These include:

- ◆ Disillusionment with clinical medicine, which offers no firm answers and no cure.
- ◆ Dissatisfaction with conventional practitioners—poor communication, lack of empathy, limited time and poor value for money.
- ◆ Desire for simplicity—CAMs are perceived as 'simple' being unaccompanied by complex directions, warnings, labels and blood tests.
- ◆ Perception that natural medicines are more 'compatible with health' and promote 'optimum health'.
- ◆ Ready access via Internet, health food shops, free-call hotlines, mail-order, free home-delivery, party-plan and multi-level marketing.
- ◆ Enticing advertising that encourages a trial of CAMs.
- ◆ Peer pressure—fashion, alternative lifestyles and 'keep fighting the disease'.
- ◆ Aim to postpone age-related deterioration and mortality.

◆ Desire for autonomy over healthcare decision-making.

No single reason accounts for an individual's decision to use CAMs. Indeed, any or all of the above reasons may apply from day-to-day and remedy-to-remedy. In her review, Barnes claimed that CAM use is based on the concept of health pluralism, a term she says "*refers to the fact that when people become ill, they will take advantage of the many sources of health advice and treatment available, which may include family, friends, pharmacists, doctors, homeopaths, naturopaths and other health professionals*".³³

Importantly, the majority of elderly consumers do not use CAMs as an alternative to conventional treatments, but as supplementation or compensation for aspects conventional treatment is perceived to lack. In a qualitative analysis of self-care decision-making, Thorne *et al* concluded "*CAM use can be understood not as a rejection of conventional medicine or an unrealistic search for a cure, but as a critical component of self-care management.... It represents personal responsibility for health, reframing the measures by which therapeutics are evaluated and how consumers adopt a pragmatic approach to living as well as possible in the context of a chronic condition*".³⁵

Cancer and palliative care patients frequently express the view that they feel it is inadequate to rely solely on conventional means of treatment and CAMs provide an opportunity "to ensure that everything that can be done is being done".^{29,31,35} This then raises perhaps the most contentious issue of CAM use in Australia, which is whether CAMs can live up to their claims. Under current regulatory requirements, the majority of CAMs are regulated as so-called 'listed' medicines, which are required by the Therapeutic Goods Administration to provide evidence of safety and quality before they can be legally marketed in this country, but they do not have to prove they are effective.¹⁸

Infrequent disclosure

Most consumers believe that CAMs are safe^{1-5,30,37} and express high satisfaction with them, often higher than with their conventional treatments.^{1,4,9,19,36} These attitudes contribute to the problem that the elderly are reluctant to declare CAM use to their healthcare providers. Studies have shown that between 55 to 62.4% of older adults do not disclose CAM use to their doctor^{2,4-6,9,13,23} and they have cited a perception that physicians lack knowledge about CAMs, are prejudiced against their use, will attempt to discourage them, and that “it is none of the doctor’s business” as to why they keep CAM use to themselves.^{16,19-21,31,33,34}

Indeed, a study of elderly consumers in rural USA showed that 83% of those using CAMs or alternative therapies did not tell their physician and only 2% asked their physicians questions about CAMs. But it works both ways, as physicians in this study only asked their patients about CAMs in 3.4% of encounters.²⁴

Several studies have shown that pharmacists, doctors and nurses are unfamiliar with CAMs and therefore reluctant to confront their use.^{16,31} It is important for health professionals to overcome the breakdown of communication in this area and, realising that consumers are unlikely to volunteer the details, systematically and non-judgementally ask older patients about their CAM use, and to take such use into account when providing pharmaceutical care.

Reviews of CAMs in the elderly

The widespread and increasing use of CAMs in the elderly presents challenges for health professionals interested in the quality use of medicines (QUM). Australia has an established and well-accepted national policy on the QUM,³⁸ which can readily be applied to CAM use as it is built upon the following principles of medicine use:

- ◆ **Judicious**—whether prescribed, recommended and/ or self-selected, medicines should only be used when appropriate and non-

medicinal alternatives considered as needed.

- ◆ **Appropriate**—the most appropriate medicine should be chosen, taking into account factors such as the condition being treated, the potential risks and benefits of treatment, dosage, length of treatment, and cost.

- ◆ **Safe**—adverse events and medication misuse, including over-use and under-use, should be minimised.

- ◆ **Efficacious**—the medicine must achieve the goals of therapy by delivering beneficial changes in actual health outcomes.

Performing a comprehensive medication review can promote the QUM of CAMs in the elderly (Table 1). The main difference between a conventional medication review and one involving CAMs is that the products may be unfamiliar to the clinician and they generally contain multiple medicines. However, there is no excuse for CAMs to remain unfamiliar now that most are described in readily available, up-to-date, peer-reviewed textbooks and web sites (Table 2) and a wealth of primary research is available. The ingredients of most CAM products should be identifiable as Australian regulations mandate that all therapeutic goods, including CAMs, be registered or listed before marketing in Australia. Part of this process requires all ingredients to be declared on packaging as well as in their formal submission to the Therapeutic Goods Administration. It is recognised, however, that CAMs such as traditional remedies, extemporaneous herbals and imported products may be less overt about their ingredients, in which case the pharmacist can seek further information direct from the manufacturer/practitioner, consult a drug information centre for specialist advice or ensure the consumer takes full responsibility for the consequences of using a remedy with unquantifiable benefits and risks.

Table 1.

Performing a review of complementary and alternative medicines

Inspect the product(s)

Where was it made? Is it registered for use in Australia? Formulation? Administration technique required? Homeopathic-is it true homeopathy? How much did it cost?

Identify all the remedies being used.

AUST L/R of products. All the brand names. All ingredients. Dose and duration of treatment

Quantify the benefit

What is the therapeutic purpose? Is it real? Outcome-based benefit (not just ‘good for you’). Level of supportive evidence? Critique the advertising. If the therapeutic purpose is meaningless or unrealistic, consider making sure the patient is aware of that, ie informed consent

Quantify the risks

Adverse reactions: What potential for intrinsic and extrinsic adverse effects? Interactions: Adding in a new drug or drugs increases the risk of drug-drug, drug-disease and drug-lab test interactions. Expense: Is the outlay in terms of money and time affordable to the patient? Disappointment: Sometimes a failed experiment can have devastating effects on the patient’s level of hope for future treatment success. Assess whether the disappointment from failure is too great a chance to take. Delay in effective treatment and disease progression: Some disease states are more amenable to treatment at specific stages of progression. Avoid wasting precious time if the most efficacious treatments can only be used at this point in time.

Risk versus benefit

Compare the potential benefit posed by the remedy with the potential harm, and with the patient, decide whether using the product should proceed.

Table 2.

Useful resources on complementary and alternative medicines.

Web sites/Comments

The Natural Medicines Comprehensive Database <www.naturaldatabase.com>	
	Subscription required
The Natural Pharmacist <community.healthgate.com/GetContent.asp?siteid= ehosp&docid=/tnp/pg000001>	Free access to consumer version
The Longwood Herbal Taskforce <www.mcp.edu/herbal/>	Free access
Assn of Natural Medicine Pharmacists <www.anmp.org/monographs.htm>	Free access
eCAM <ecam.oupjournals.org>	Free access
National Centre for Complementary and Alternative Medicine <www.herbmed.org>	
	Some free access
American Botanical Council <www.herbalgram.org/default.asp?c=defaulthome>	
	Free access
Bandolier Complementary and Alternative Therapies <www.jr2.ox.ac.uk/bandolier/booth/booths/altmed.html>	Free access
Memorial Sloan-Kettering Cancer Centre: About herbs, botanicals and other products <www.mskcc.org/mskcc/html/11570.cfm>	Free access
WHO monographs <www.who.int/medicines/library/trm/medicinalplants/monograph_volume_two.shtml>	Free access
Botanical Pathways (online or hard copy) <www.botanicalpathways.com>	Free access
American Botanical Council's Herb-Ed-Web <www.herbalgram.org>	Free access

Textbooks/Comments

Ernst E, editor. <i>The desktop guide to complementary and alternative medicine—an evidence-based approach</i> . Edinburgh: Mosby; 2002.	Authoritative review of the evidence
Barnes J, Andersen LA, Phillipson JD. <i>Herbal medicines</i> . 2nd ed. London:Pharmaceutical Press; 2002.	British
Fugh-Berman A. <i>The 5-minute herb and dietary supplement consult</i> . Philadelphia:Lippincott Williams & Wilkins; 2003.	American
Fetrow CW, Avila JR. <i>Professional's handbook of complementary and alternative medicines</i> . 4th ed. Philadelphia: Lippincott, Williams & Wilkins; 2003.	Convenient handbook size
Blumenthal M, editor. <i>The ABC clinical guide to herbs</i> . Austin: American Botanical Council; 2003.	Herbals only. Includes patient handouts
Cherniak P, Cherniak N. <i>Alternative medicine for the elderly</i> . New York:Springer; 2003.	Geriatric focus
Braun L, Cohen M. <i>Herbs and natural supplements-an evidence based guide</i> . Sydney: Elsevier Australia; 2005.	Australian
DerMarderosian A, Beytler JA. <i>The review of natural products. Facts and comparisons</i> . Wolters Kluwer Health Inc; 2005.	Updated monthly

Efficacy

As mentioned earlier, there is a growing body of evidence including randomised, controlled trials and systematic reviews to support the efficacy of certain CAMs in specific conditions.^{16,36,40}

It is beyond the scope of this paper to summarise all the evidence, however a summary of indications

for which high levels of evidence support specific herbal treatments is presented in Table 3. A few points should be made regarding interpreting efficacy data in the area of complementary medicine.

Firstly, the rigorous principles of evidence-based medicine are not always applied in CAM literature. Published reviews and marketing materials can frequently be found to

focus on positive studies and omit negative findings. Web sites for example, such as:

www.tinnitusformula.com/qtimes2004/02/holsurvey.aspx

advocating the use of *ginkgo biloba* for tinnitus, often fail to cite the Cochrane review that does not support ginkgo as a treatment for tinnitus.⁵³

Secondly, the application of clinical trial data to elderly subjects should be conservative as clinical trials of CAMs are rarely conducted in the elderly, doses usually do not account for renal impairment, and co-morbidities such as heart disease or diabetes (common in the elderly) may have been excluded.

As with prescription medicines, the findings of clinical trials can only be attributed to the product actually tested. Hence, when consulting efficacy data of herbal remedies it is very important to note the type of extract used, its strength and formulation.³⁶ For example, three species of echinacea are used clinically (*E. angustifolia*, *E. purpurea*, *E. pallida*), however, most of the data supporting treatment of the common cold is based on extracts of *E. purpurea*. Therefore, only *E. purpurea* extracts can be considered effective. Moreover, most research focuses on single ingredients, rather than the combination products that are commonly available.

CAM related problems in the elderly

Although most CAMs have a relatively low potential for toxicity when used at recommended doses, a broad range of intrinsic and extrinsic adverse events (AEs) are increasingly being associated with their use.³⁷

Intrinsic AEs are those that occur as a consequence of the pharmacology of the substance, whether predictable (type A) or idiosyncratic (type B). For example, *ginkgo biloba* has been associated with various forms of haemorrhage (type A),³⁹ and *kava kava* has been linked with hepatitis (type B).³⁶ Extrinsic AEs are not related to the herb itself, but to problems in commercial manufacture or

CAM Use in Elderly

Table 3.

Indications for which high level evidence supports the efficacy of complementary and alternative medicines^{39,40,50}

Indications	Plant	No. RCTs showing efficacy
Benign prostate hypertrophy	<i>Serenoa repens</i> (Saw palmetto)	21
	<i>Pygenum africanum</i> (African plum)	18
Anxiety	<i>Piper methysticum</i> (Kava)	7
Chronic venous insufficiency	<i>Aesculus hippocantum</i> (Horse chestnut)	13
Rheumatoid arthritis pain relief	Various herbal remedies	11
Osteoarthritis	Various herbal remedies	5
Migraine prevention	<i>Tanacetum parthenium</i> (Feverfew)	4
Hypercholesterolaemia	<i>Cynara scoloyus</i> (artichoke)	2
Depression	<i>Hypericum perforatum</i> (St John's Wort)	27

compounding, including adulteration and contamination. For example, the association between l-tryptophan and eosinophilic myalgia syndrome was most likely caused by a contaminant from the manufacturing process.³⁹

In order to make a rational assessment of CAM safety in a particular patient, it is best to consult high-quality CAM resources for up-to-date information on possible toxicity issues (Table 1). Clearly, the patient's age, genetic constitution, nutritional state, concomitant diseases and concurrent medication need to also be taken into account. Unfortunately, AEs associated with CAMs are not as well documented as they should be, as consumers and health professionals have generally been unaware of their responsibility to participate in CAM pharmacovigilance. However, this may be changing.

In May 2004, the World Health Organisation (WHO) issued a press release to alert health professionals of an alarming rise in adverse reac-

tion reports to CAMs therapies in the preceding two years.⁴¹ As a result they issued new guidelines on safe and appropriate use of complementary medicines in an attempt to temper over-enthusiastic uptake, especially in developing countries. WHO has also advocated the creation of AE reporting systems for consumers in order to better capture AEs associated with self-medication. The *Adverse Medicine Event Line* was established in Australia in October 2003 and a substantial percentage of consumer reports

have been associated with CAMs.⁴²

The eight Hepler and Strand drug-related problem types⁴³ are a useful tool for classifying CAM-related problems in the elderly. In addition, there is a range of indirect harms that can ensue from CAMs, which should be explained to consumers. These include their cost in terms of money and time, withdrawal or delay of more effective treatment, and disappointment/loss of hope if the CAM is ineffective.⁴⁴

Polypharmacy

A critical issue in the elderly is that CAM use exacerbates polypharmacy, which is a risk factor for drug interactions, medication errors and hospitalisation.⁹ This is especially relevant as most CAM products contain multiple medicines and older consumers tend to take multiple products. Canter and Ernst recently demonstrated this in a survey of 271

Table 4.

Selected complementary and alternative medicines and their cytochrome 450/P-glycoprotein (PGP) influences^{39,51}

	Substrates of	Inhibitors of	Inducers of
Caffeine (eg, in guarana)	1A2, 3A4	1A2	-
Cranberry juice	-	2C9*	-
Echinacea (purpurea root)	-	1A2, 2C9, 3A4	Intestinal 3A
Estradiol	1A2, 3A4	1A2	-
Ethanol	2E1	-	2E1
Fish Oil	-	3A4 (in vitro)	-
Garlic	-	2E1 2C9,* 2C19,* PGP*	-
Ginkgo biloba	-	2E1	1A2,* 3A*
Ginseng	-	3A*	-
Goldenseal	-	3A4 (in vitro)	-
Grapefruit	-	3A4,5,7, PGP	-
Liquorice	-	2B6, 2C9, 3A	-
Marijuana (THC)	-	-	1A2
Progesterone	2C19, 3A4	PGP	-
Quercetin	-	2C8	-
Smoking/tobacco	-	-	1A2
St John's Wort	-	PGP (acute use)	1A2, 2C9, 2C19, 3A, PGP (chronic use)
Testosterone	3A4,5,7	PGP	-
Valerian	-	3A4 (in vitro)	-
Watercress	-	2E1	-

*Preliminary data

British seniors, who admitted regularly using a mean of 5.91 (range: 4-7) herbal and nutritional supplements.⁹ One man reported using 20 herbal medicines but the remainder used 7 or fewer, and the group as a whole used a mean of 2.26 prescription drugs. Interestingly, they found no statistically significant correlation between the number of CAMs and the number of prescription drugs taken. In a Canadian survey of 193 older adults with cognitive impairment, 15% used at least one herbal remedy, 13.8% used two and 44.8% used three or more.¹⁶

Drug interactions

As the number of medicines increases, so too does the risk of drug interactions. A Canadian study of older adults attending a memory clinic found that almost one third of patients were at risk of a herb-drug interaction⁴⁵ and in their UK-based study, Smith *et al* found that 19.2% of patients on warfarin were taking at least one CAM that may interact with it.⁴⁶ In geriatric patients, CAMs with anticoagulant properties such as ginkgo, garlic and fish oils should be closely monitored given the likelihood of co-administration with drugs such as warfarin, aspirin, clopidogrel or heparin. In the hospital environment, an important concern is the interaction between CAMs and perioperative medicines such as muscle relaxants, narcotic analgesia and anaesthetics.^{48,49}

Evidence suggests that identification of CAM-drug interactions in older persons are grossly under-recognised.⁴⁹ However, many drug interactions with CAMs can be predicted and avoided with knowledge of how CAMs influence the cytochrome P450 and P-glycoprotein systems (Table 4).

CAM	1.	2.	3.	4.	5
Alfalfa				X	X
Aloe			X		
Angelica				X	
Bee Pollen					X
Borage		X			
Cascara		X			
Cat's Claw				X	
Celandine		X			
Chaparral		X			
Chondroitin	X			X	
Comfrey		X			
Damiana		X			
Dandelion					X
Dong Quai				X	
Fenugreek				X	X
Fish Oils				X	
Garlic	X			X*	
Ginger				X	
Ginkgo biloba				X	
Ginseng					X
Glucosamin					X
Goldenseal	X				
Gotu Kola					X
Guggul				X	
Hesperidin				X	
Horse chestnut		X		X	
Irish moss					X
Kava		X			
Kelp				X	
Licorice			X		
Meadowsweet				X	
Milk thistle		X			
Mistletoe			X		
Olive Leaf					X
Pau D'Arco				X	
Red clover				X	
Royal Jelly					X
Schisandra	X				
Shark cartilage		X			
Skullcap		X			
Turmeric				X	
Valerian		X			
Walnut		X			
Willow		X	X	X	
Wormwood			X		
Yerba mate		X	X		
Yew		X			
Yohimbe			X		

*Only high dose garlic > 4 g/day.

Legend
1. Full blood count; 2. Liver function tests;
3. Urea and electrolytes; 4. Coagulation;
5. Blood glucose level.

Dosage adjustment and monitoring

Alteration of CAM dosage to account for age-related decline in renal function can rarely be pursued in complementary medicine, as the relevant pharmacokinetic properties of most remedies are unidentified. However, Fetrow and Avila have provided therapeutic monitoring guidelines with some commonly used CAMs (Table 5).⁵² Clearly, this is an area that is largely unexplored, so careful monitoring of the patient, together with a good knowledge of pharmacology and pharmacokinetics, will alert the clinician where drug dosage alteration is required. Adverse effects observed should be communicated to ADRAC or in the medical literature.

Conclusion

The extensive use of CAMs in the elderly makes it imperative for health professionals to have a working knowledge of the relevant issues associated with their use. CAM use exacerbates the risks of polypharmacy such as interactions and adverse reactions, but given that some remedies are efficacious, the decision to trial an unproven remedy is an exercise in assessing the risks and benefits.

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Invitation to Readers



ADVERSE MEDICINE EVENTS LINE

1300 134 237

Geraldine Moses invites readers to contribute to
AMEL if they have had any adverse events.

www.mater.org.au/ame/

The aim of the AME Line is to document reports of
adverse drug reactions directly from consumers,
without their having to go through their health
professionals.

We triage reports according to strict criteria and
send those that are appropriate to ADRAC at the
TGA. During our piloting phase (2000-2002) ap-
proximately 13% of ADR reports related to natural
health products. These days its more like 6%, but
the reduction is better than nothing!



Preaching to the Un-converted

**Our rallying cry should shout:
"Be Positive – Be a Skeptic"**



Lynne Kelly has taught science for 30 years and is the successful author of a number of books, including *The Skeptics Guide to the Paranormal* (available from the Skeptics online shop).

*Astrology? You'd have to be an idiot to believe that crap. And psychics? They are all just frauds. They just fish for stuff from the gullible fools who visit them. John Edward is just a bull*** artist. UFOs? Humbug. How often do we have to tell them it's just lights in the sky. Total nutters — the lot of them. Alt med is just a rip-off where the liars take money from those too stupid to know any better. Spontaneous human combustion? That old turkey. Surely you don't believe in that?*

Hey, I'm a skeptic. Why don't you join us and you can be like me!

There is a reason the other side get better press than us! And here I will hit my mantra: we need to be enthusiastic and positive if we have a message to sell to the un-converted.

They have argued in beliefs with emotions and we argue them out with reason. Why shouldn't we use emotions as well? Let's grab the moral high ground. I love the view from up here!

Before I start preaching as the born-again skeptic, I want you to answer a few questions. Quickly. Asked this in the street by a stranger, what would you answer?

What is a skeptic?

What is skepticism?

Who are the believers?

Is skepticism a lost cause? If so, why?

I went to the World Skeptics Congress in Italy, late in 2004 and underwent a revelation. I firmly believe that we in Australia have the basis for leading the world in a new revolution in skepticism

In most of the countries represented at the World Congress, religion is embedded in life and in education. Schools are teaching kids to accept things on faith. Don't question. In talking to people from a huge range of countries I concluded that because Australia legislates that religion is not part of education, that we are far better off than most. The way the Australian culture also differentiates religion from daily life in the typical home is very much to our advantage. So many children in this world are taught not to question. Australia is one of the few countries, it seems, where children have the right to ask questions and where the Church does not dominate the answers.

In a heated debate over one lunch, all, with the exception of one American and me, were convinced 'skeptic' is such a negative word we should never use it. But no-one had an alternative. I have found very little negative response when I have been dealing with the media or lecturing on skepticism. All it takes is for me to deliver a positive definition up front, and the rest is easy.

Why does the new age guru's stuff

sell so well? Because it is positive and uplifting. Now look at your own definitions of a skeptic. And skepticism. And the believers. Is it positive uplifting stuff? Does it make a statement that means people would want to be like you?

We are seen as negative and cold and miserable by some. I put my worldview forward in a single paragraph of *The Skeptic's Guide to the Paranormal*:

Some believers accuse us skeptics of having nothing left but a dull, cold, scientific world. I am left with only art, music, literature, theatre, the magnificence of nature, mathematics, the human spirit, sex, the cosmos, friendship, history, science, imagination, dreams, oceans, mountains, love and the wonder of birth. That'll do me.

When promoting the book, some things worked really well and quickly in interviews, lectures and school talks. I want to present those now in the hope some of you may find them useful when talking to the un-converted.

Preach mode is now firmly ON.

Definitions of skepticism

First — let's make sure we *believe* rather than we *disbelieve*.

What is skepticism? It is a belief that reality is awesome. And reality is so fascinating it doesn't need embellishment with things which aren't real. We skeptics want to believe in what's real. Who needs the paranormal when we've got so much more to find out about the normal? Skepticism is a protection against being exploited financially — but even more importantly — emotionally.

So what is a skeptic? Someone who believes reality is awesome. Someone who believes that scientific method is the best chance of knowing what's real. Someone who wants to believe in what's real. Someone who loves life in the real world.

Who are the believers? They are people who believe, and usually for very good reasons. It is the way they have interpreted the information available to them. We don't always agree with that interpretation. So we

would like to put forward alternative explanations.

Are they gullible fools? No. I don't know the difference between 'gullible' and 'trusting' and I am trusting. So I am gullible. That makes me vulnerable. I don't mind admitting that. Let he who has never been fooled throw the first bent spoon.

Trusting = gullible = vulnerable. I don't want to be vulnerable, so I rely on skepticism to protect me. A positive!

Fools? I have been cold reading now for three years and done hundreds of readings. As a cold reader, I depend on our sitters making the links, connections and giving meaning to my specific sounding, general statements. Without exception, the smarter people are much faster at making links and finding the meanings and patterns and then helping me to build on them. Without an understanding of cold reading, it is understandable that this significant correlation is taken as having validity. Many skeptics have never had a reading and don't realise how easily we can be drawn in.

As psychics and cold reading are key topics, there are some simple tools you can use for talking about this without giving offence to someone who is undecided on their belief.

Definitions of Cold Reading

Cold reading is telling people things about them you couldn't possibly know, when you don't. Skeptics get their explanations of this wrong with embarrassing regularity.

It is not fishing for information. Psychics like to define cold reading that way because it really suits them. They then show that they don't ask questions and go fishing. Britain's Psychic Barber, Gordon Smith, draws on that false definition in his promotional material, and that was thrown at me a few times when he was here. He doesn't ask any question of his sitters. Neither does an astrologer preparing a chart. Neither does a tarot reader giving a simple reading. Neither do I in a short reading or when confronted

with someone sitting there offering nothing back.

Fishing for information is used in longer readings once you are past the initial stages, but it is only a part of the arsenal of a cold reader. In fact, if you fish too early, you will be told things which ruin your best lines. An example:

I am getting the strong feeling your main occupation involves communication, but it isn't as simple as that with you, is it? [Don't wait for an answer. That is a statement. You're psychic. You already know you are right. You go straight on.] Most people really have to use their communication skills to the max and lots have to push themselves to say what they think, but you are being held back. I really feel you have more skills than are being allowed for and you actually feel restrained in letting forth and really running with those unique ideas of yours, don't you?

[You may now get a response, but you don't need one.]

You have told them they are different, when in fact you are telling them they are really the same as most people. If you had been told the person's job or dream or studies in advance — which is what people always tell you because that is their personal identification — then you cannot claim this communication bit. It will be obvious.

Most tarot and astrology readers I have met have not been frauds. They have been using the same methods as me, but without crediting the method and their own intuition. They give credit to the charts and cards. I take it for myself.

So what is cold reading? Cold reading is telling people what applies to most in their demographic (age and gender) and making it sound very specific to the individual. Then you enter into a sensitive feedback system, to get the response: 'She told me things she couldn't possibly know!' when you really didn't know much at all.

Knowing about people in advance is hot reading. It is harder than cold

reading to make convincing unless you have really been sneaky in getting the information.

General definitions don't tend to be very convincing. I have found quoting the following scenario conveys a convincing example. This happened at the Psychology Teachers' Conference in Melbourne. A group of people were watching. And it is fair dinkum. You can trust me. I'm a skeptic

Cold Reading example

I am reading a woman in her early twenties. Having made some general comments from the reading of the masks which form the initial stages of Tauromancy, my own divination system, I announced that the sitter had endometriosis. She declared to all present that 'there is no way she could have know that! No-one except my husband and doctor knows. No-one.' Gasps from the crowd (who all now know). I had my major hit. How did I do it?

I had mentioned that she had some long term hopes and this included children. (Good chance with someone in early twenties.) She looked a bit reserved but sort of agreed. I changed topic. A few side-tracks, then to the mask of ill-health. I said there were health issues. This got a fast reaction. Just a look. Fast means close to her. She didn't need to search into the wider database of family and friends.

So I went for it. I said: Endometriosis. She reacted loud and clear.

Note, I did not actually say she had endometriosis. If she didn't have it, and my guess about her reservation about children was right, then she has probably been tested for it. If she doesn't have it, or ever been tested, then she probably knows someone who has. I had just said the name of the disease and health issues, so I run with the friend / relative and how she is probably not aware how much her support has been valued. Had I still missed, I would have leant forward and whispered that I think she should have that checked with her doctor. I would have nodded and she would have

nodded and the audience would have seen a secret nodding. Whatever happened, I would get a hit

This time I got the jackpot. Given the editing suite which assists John Edward so much, this would have stayed in!

Of course, most of the men and some of the women had never heard of endometriosis, which is what makes it so exotic and convincing. It is a female only disease, which is now becoming commonly diagnosed or tested for, but not talked about much. Perfect for us cold readers.

I have now used the naming of endometriosis in quite a few readings with great success. And had tears a number of times with that revelation. Unlike those on the lower moral ground, I always stop a reading if I hit gold, and explain exactly what I have done. We skeptics don't exploit.

John Edward

Let's take the opportunity to make our grab at the moral high ground now. John Edward. You knew I'd come back to him, didn't you? He's the guy who helps people find resolution and brings comfort from their dearly departed, isn't he?

Let's just read his disclaimer which flashes up for a few brief seconds at the end of his TV show.

'...for entertainment purposes only'. This guy makes people in the raw stage of grieving cry for the cameras and international distribution '...for entertainment purposes only'!

Jesus!

Sorry, but we would never do that. We hereby claim the moral high ground. No skeptic will do tear-ridden readings for grieving people in a public arena even though we know we could do it. We would sure get good media coverage. We would never do that because we could not exploit their grief '...for entertainment purposes only'. It is simply immoral.

I have found that comment gets a far stronger reaction than trying to explain cold reading as the first step. Then, if they ask further I go into

the cold reading example. Only if still questioned do I start on the general explanation.

UFOs and Tic Tacs

I carry a few little amusing things with me which allow me to make the skeptical point without criticising anyone. (John Edward is fair game, but most believers are genuine in their belief and are not fair targets for ridicule. I believe our role is one of education and enlightenment. A good teacher does not ridicule a student who does not know something they have never been taught.)

A tic tac works well for a simple explanation of some UFO sightings. Many are total internal reflections off inversion layers or the upper atmosphere. Make that spiel and you have lost your audience to boredom. Here's the alternative.

Take out a tic tac, or other small lolly which won't dissolve fast. Place it in a clear glass with a little bit of water. Viewed from underneath at an angle of around thirty degrees from the horizontal, you will be able to see the reflection of the lolly on the underside of the surface of the water. Try it!

Show people that. Then liken the water to the atmosphere. Or to cold air trapped near the earth in an inversion layer. A bright light, say the reflection of the setting sun from a lake, Venus close to the horizon, any bright light can reflect like that back to earth. Move your head and the image will move. It will distort with the slight movement of the water. This can be extrapolated to a bright light in a clear sky, which can't be detected by radar.

Over the dinner table, your audience have seen it themselves, and no-one was called a fool. If the conversation persists, the other common explanations can be introduced.

Spontaneous Human Combustion

If you want to get a bit more complex, then a simple spontaneous human combustion demonstration works well. Again it is a topic which fascinates, but causes little offence.

A small candle wrapped in gauze

acts as a model human dressed in clothes. Cut off the wick. If you get really keen on this, you can get little blood red candles made with no wick. The red wax dripping on white gauze can be most gory!

Using a small amount of perfume on the gauze, light the 'candle' on the outside. Leave it burn.

Spontaneous human combustion is a real event. The human combustion bit is genuine and does happen. The spontaneous bit does not. The body is completely consumed, including the bones. In a crematorium, the bones are not consumed. But extremities—an arm, the leg with shoes—is left untouched. The surrounds may be a little melted, but they are not burnt. And the explanation is burning away on the table in front of you.

Just like a case in France where murderers used Chanel No 5, to act as the accelerant to destroy the body. Well, they would in France, wouldn't they? You can use cheap junk. It burns just as well.

The clothes act as the wick, absorbing the body fat (wax) to feed the flame. The wick does not burn until all the wax has gone. The clothes char, but do not burn until all the body fat has gone. This includes the bone marrow. It is small, intense flame which lasts about five to seven hours.

The candle on the table models exactly this. You will see the 'clothes' char but not burn as they continue to absorb the 'body fat' and sustain the flame. The legs and arms, without the clothing to act as wick, also lack the body fat to sustain the flame. So they are not consumed unless next to the body.

I have been astounded how many people have confessed to worrying about spontaneously bursting into flames. They won't. If someone who is conscious starts to burn like this, they will just put out the flame.

Sign of the Zodiac	Official Dates	Current dates
Aries the Ram	21 March 20 April	19 April 13 May
Taurus the Bull	21 April 20 May	14 May 19 June
Gemini the Twins	21 May 21 June	20 June 21 July
Cancer the Crab	22 June 23 July	21 July 9 August
Leo the Lion	24 July 23 August	10 August 15 September
Virgo the Virgin	24 August 23 September	16 September 30 October
Libra the Scales	24 September 23 October	31 October 22 November
Scorpio the Scorpion	24 October 22 November	23 November 29 November
Ophiuchus the Serpent Holder	Who?	30 November 17 December
Sagittarius the Archer	23 November 22 December	18 December 18 January
Capricorn the Goat	23 December 20 January	19 January 15 February
Aquarius the Water Carrier	21 January 19 February	16 February 11 March
Pisces the Fish	20 February 20 March	12 March 18 April

Astrology – the right signs

Trying to explain why astrology is generalised and all that stuff, is hard. By far the thing in my whole book which attracts the most attention is the table, which came via *the Skeptic* from Sir Jim R Wallaby, waaaay back.

A quick mention that everyone is probably looking up the wrong sign, which is why their tall, dark stranger never did appear, gets a laugh and the immediate question: what is my correct sign?

Drag out the table. I keep a copy with me.

Why? A simplified answer:

The sign of the zodiac is the constellation in which the sun rose at the time of our birth. But the earth's axis wobbles. The earth rotates on its axis, but that axis isn't fixed in space. Over the last 2000 years, the wobble has meant that all signs have moved about 30 degrees in the sky. If you want to get technical, look up 'precession of the equinoxes'.

An astrologer will immediately claim this is simplified (to which you agree) and that the planets and spe-

cific times all need to be taken into account. So they are agreeing the star sign doesn't mean much. To which you agree. It is very hard to make a case for astrology when the star sign of the individual has no real significance. It's main attraction is now lost.

Skeptic's Alternative Medicine

Drug company* profits are high enough. 'Health food shops' sell very little food or health. They sell lots of drugs. Drugs are chemicals in bottles which cause some change to the body. Even if we feel many are totally inert, they are chemicals in pills.

The health food shop is the one with the bananas out the front. As most of the people who seek out alternative remedies are the walking well, we can offer them a better deal. For free!

* 'Drug Company' is a dirty two-word. Pointing out that Blackmores is a highly profitable drug company just like all the rest, and we have made the point.

Preaching

Most people would be very well served by following the medical advice:

Each day, take a walk to the fruit shop.

Buy some fresh fruit and vegetables

Walk home.

Consume purchases.

And we have genuine scientific research results to back our claims.

Psychic detectives; we take the moral high ground.

As soon as a positive upbeat skeptic gets the chance, we should stake out another claim on the moral high ground. Psychic detectives give us just that chance.

Explaining the failure rate is all very well, but leaves us being rational in the most irrational of circumstances. Someone's child is missing. They don't know what has happened. Anything could be happening and the police have no leads. A psychic sees something. Would you follow up? I would. Anyone in that situation is at the most vulnerable a person could be.

So let's hear from someone who has been there. The words of a father whose thirteen year old daughter,

Genette Tate, had been missing for weeks tells what it felt like. John Tait said:

But the promises of the psychics were all lies. They raised false hopes in us. At times we really believed we were onto something... But always, when it came to the crunch, the so-called leads and ideas led absolutely no-where but into a pit of despair... They were very strong characters who were not afraid to assert themselves. They rode roughshod over our feelings—which were in a desperate state already.

Over 2000 pieces of information from psychics and clairvoyants were presented to police in this case, and they followed up on every one of them. Twenty five years later, police have finally identified who they think killed her. None of the psychics helped at all. What might have happened if so much police time hadn't been wasted in the weeks following her disappearance? And more importantly, who can ever justify such cruelty to her parents?

Using the names in a real case makes it more human. Statistics of five thousand cases do not have the impact of the image of one young girl gone missing and never found, and one grieving father.

We skeptics take the moral high ground. We feel strongly about what

we do because we want to protect people like John Tait from such cruel exploitation.

Conclusion

I have presented only a few ideas here and would be delighted if a flood of letters to *the Skeptic* suggested more.

I get accused of only tackling the easy topics. Guilty as charged. It's all I'm qualified to do. My background is in science. It is science I am defending and I stick to the topics where I feel I can draw on solid science. That's what makes me feel strong and enthusiastic and an emotional high infiltrates the preaching. I can only preach my way!

If nothing else, I beg you to take the positive definitions. We skeptics believe in things: reality is awesome!

People do not want to join a group they consider to be full of cold, rational beings who ridicule those they consider less intelligent than themselves.

In Australia we have a chance to show the rest of the skeptical world that we can take a positive role. We can be role models. We can show the world that being a skeptic is fun and uplifting and people would like to be one of us.



Corrections



In the last issue (25:1) we carried an excellent article, "Psychics Dealt Out", with a grovelling note confessing that we had carelessly mislaid the name of the author and with an appeal to him/her to both identify him/herself and to forgive us for our trespasses against his/her identity.

We are delighted to say that we have now been informed that the article was written by Laurie Eddie, a psychologist and the Prime Mover of the SA Skeptics.

Our sincerest apologies to Laurie who, in his own right, is not easy to overlook, especially given that he, as his likeness at left will attest, could easily pass "in the dark with the light behind him", as a close relative of the Editor (though, arguably, not given to penning such complex sentences as this one).

The final *Letter*, in 25:4 "After the Conference" was from John August, whose name we unaccountably obliterated from the final result.

My Magnetic Personality:

Genesis of the Jelly Bean Lady

Taking on quacks at their own game



Loretta Marron, after training in science and a career in business, has branched out into showbiz under the persona of Jelly Bean Lady.

I'm lying on a luxuriously soft bed wearing a see-through apron. The lights are on, the camera is rolling. It seems that I have prepared for this moment all my life. I'm going to be a film star. I can see them handing me an Oscar. Nicole Kidman, eat your heart out.

Well that's one way to start this story. Here's another.

I'm sitting at a table nerves stretched, my mouth dry, my lips stuck together, counting jelly beans; red ones right, blue ones left, other colours in the middle. On my forehead is a band of pink ribbon with a black jellybean wired into the centre. A pink jellybean earring dangles, swings and dangles energetically from each ear and I'm wearing a jellybean patterned plastic toddlers apron.

A large corkboard rests on the table beside me covered with a piece of lace café curtain —

www.healthinformation.com.au stands out in bold letters at the top. From left to right across the bottom are pinned three A4 jellybean patterned sheets each of which advertises a new line of Placebo Products; Jellybean Acupressure Bracelets; Jellybean Pain Management Jewel-

lery and Jellybean Detoxification Pads, each showing a sample of the products complete with ribbon and gauze with a single centred wired-in jellybean. At the far right of the table is a glass Irish coffee mug with jellybeans stabbed on the end of kebab sticks marked 'Herbal Tea'. Beside me is a large open jar of jellybeans with a label

PLACEBO PILLS proven to be over 30% effective in curing EVERY disease & health condition by thousands of Double Blind Clinical Trials all over the world.

Last but not least, a liberal sprinkling of loose jellybeans spread around the table completes the scene.

The young man holding the Channel 9 camera tells me to keep moving the jellybeans around 'as though they were pills'. As I do so I know my set-up looks good. All those money grabbing manipulative girly party plan presentations I've begrudgingly suffered over the years, in the name of friendship, are actually paying off. While the display looks great, I don't need to ask myself why as a well-educated, professional woman I should be telling the world I am the

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Jelly Bean Lady. I know the answer is easy. I'm an Aussie scientist and proud of it. I seek the medical and scientific evidence. I have a mission, a passion, a soapbox — I have something to say and have had for some time — I'll do whatever it takes. And as I push the little coloured lollies around I know I've been given the opportunity of a lifetime and I'm loving it.

In the beginning

The story doesn't start there though; it goes back about 2 years. A friend of mine, an electrician, told me he had bought a magnetic underlay; it hadn't worked so he returned it. I made my usual sensitive, concerned and compassionate statement, as I do when being told something that I consider pseudoscientific. "You've got to be joking — how can a piddling little fridge magnet effect pain transmission". "You have a closed mind" was his response. Perhaps he was right, I thought and so started my quest for the holy magnetic grail.

Somewhere in my past, long before my computing career, I was a young woman who was mad about science. I am not one to walk away from a challenge, but my Physics degree was completed well into the previous century and I knew I had a lot to learn. With the help of the internet, it wasn't long before rusty cogs and creaking wheels started to move inside my brain and as I started to understand the wonders of pure physics I was soon hooked. Sitting at my keyboard, I once again became the 17-year-old who used to strut around the campus arguing the mathematical equations of Einstein's theories, solving simultaneous multi-dimensional equations while pondering the secrets of the cosmos. In reality I was back in grade 8 trying to find out how a simple static magnet worked, but it was all the same to me. Why had I wasted all those years making money as a computer professional

when I could have been a happy, starving and broke scientist? I had to make up for this lost time in my life, wasted on capitalism and financial ambition.

As I surfed the internet, my scientific creative juices started to flow and I soon had folders of articles and reports of facts and figures; energy and electricity; research and ramblings. A few days later I made the decision and had defined my project. I would do a topographical profile of the magnetic field of an underlay. However, I had a small problem — no magnets and no ways to measure them. I did find mathematical formulas and some basic data and driven by unbridled optimism and blind faith my experimenting began.



The Universal Cure-all

Tooling up

As it was impossible for me to borrow a Gauss meter to measure magnetism, I thought I would buy one. Surely it couldn't cost much more than an Amp meter? One phone call later I found I was not smiling. A direct current (DC) Gauss meter would cost \$5000 with a four-month wait for it to arrive from the UK. Plan A — Rest in Peace.

Plan B was soon developed. I would email, write and phone to see if anyone would help. All I had to do was to find other knowledgeable people who were mad about magnet-

ism and find them I did. They were wonderful, interesting and interested. Counting the jellybeans as the camera rolled, I thought about the journey that had led me to this day and I was once again lifted by the generosity and spirit of some great people from around the world who eagerly and enthusiastically shared their knowledge and stories with me.

To my great luck and delight there was Dan Bartman. He lives with his wife and young daughter in a log cabin in the mountainous wilderness of Colorado, USA, his home powered by wind generators. Frequently moose and deer pass by his front porch and sometimes he gets snowed in for weeks at a time. His home is his escape from the rat-race. He

finances this way of life by selling all sizes, shapes and strength magnets on the internet and freely offers advice to anyone who emails him. His clientele includes a wide scope of weird and wonderful people who range from those who are intent on trying to make perpetual motion and anti-gravity machines, UFO and crop circle true believers, budding ghost busters, water purifiers, DIY magnetic health product manufacturers and people like himself who want to generate electricity. I asked Dan to measure magnetic fields for me for a range of magnets and distances from them and he willingly emailed me back the informa-

tion. I sent photos back to his daughter of the platypus, koalas and wallabies that live near my home. It was all I could do to thank him and he reported back that his daughter loved them. I had found the correct tender for these knowledge based transaction and I was paid well for it.

With the information I was given, I completed my mathematical calculations and went out to buy five small rubber balls of a particular size (smaller than a tennis ball). I then cut them in two and wrapped them in aluminium foil. These, when

placed on a cotton underlay, represented my magnetic fields over the magnets. I had never been up close to a genuine magnetic underlay so I did not know the spacings. A quick trip to my local pharmacy was very productive. They let me unwrap the underlay and I measured the distance between the magnets. From the flea market, an amazing source of all things great and small, I found a very shapely clothing dummy that I dressed in a Ken Done bathing costume that, since retiring, no longer seemed to fit me. She had no head, legs or arms but she was all I needed to show that pain centres were not on the body surface, but may be several centimetres inside the joint. That was the theory anyway.

Demonstrating the result

My first demonstration was a complete failure. No one understood my silver balls. The women were more interested in the artwork on my Ken Done bathers and the men wanted to have their photos taken with the dummy. She was given the name Esther and she soon developed a fan club. She even received several Christmas cards. She now hangs on my verandah wall with quite a few mud wasps nests attached to her — retired and discarded before her life really began. My friends had made me realise that I had to do better.

As happens in life, luck was on my side. Dan came to my rescue. He had developed a portable DC Gauss meter and found one in his collection that he said was scratched and dented and which he sold me for half price, and it was soon heading my way.



Jelly Bean Lady displays here wares

The following week I declared to yet another long-suffering friend, tormented by me because he refused to accept he was a magnetic therapy victim, that electric train transformers had more magnetism than his underlay. He responded that he didn't want to sleep next to the transformer. Having made the statement about the railway transformer I realised that this could be true. Another part of the holy magnetic grail puzzle had presented itself to be solved.

In my search for yet another piece of magnetic trivia I had the pleasure of talking to George, whose surname I can't remember. I contacted the railways and they put me through to George. I asked him if there were any reports on the magnetic fields around railway transformers. He

was ecstatic. When he had completed his Engineering degree, his thesis was on the Magnetic Flux around a suburban railway station. He had waited over 30 years for someone to ask him about it. We talked for over an hour, sharing magnetic stories, AC versus DC; pulsing versus static; round versus square — nothing to do with my magnetic underlays but riveting stuff for a fellow magnet enthusiast like myself. However, he did confirm that the magnetic field near a transformer was in fact far greater than the magnetic field over the underlays.

After two incredibly long weeks, my Gauss meter arrived. I spent most of that day playing with my magnets but I knew I still had no authentic underlay magnets. A

few emails later to some of the magnetic underlay manufacturers and for the cost of \$20, I was rewarded with 10 barium ferrite 1050 gauss (surface reading) magnets. I was on a roll.

I soon developed a new presentation where I let people read the magnetism above several types of underlays that I had purchased from the flea market. I no longer had to convince them, they could see the readings for themselves. I took every opportunity with friends, family and even the occasional stranger, to somehow manipulate the conversation to bring up the topic of magnetic underlays and out would come my magnets, my piece of old car seat cover sheepskin and meter. Occasionally some people wanted to hear

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what I had to say. It was great. In the area 10 cm above a magnetic underlay only a few percent of the volume had magnetism greater than a fridge magnet and I could prove it. Magnetic underlay pain relief was all a giant lie. As with the tobacco industry knowing about nicotine addition, the magnetic therapy people had their own gauss meters and must have known the diminished magnetism over their underlays.

Using the media

I wrote to *60 Minutes*, I wrote to seniors magazines and newspapers, I wrote to pharmacists. I left messages, emails and faxes but no one called or wrote back. No one seemed to care. Placebo was fine. What did it matter if the pensioners with chronic pain starved themselves to save the money for an underlay? What did it matter if these same people would never have the strength or life skills to return the product? What did it matter if they believed that their pharmacists had the interests of their elderly customers, and not their pockets, at heart when they sold these unproven pain relief items, encouraged by the high profile television stars and their persistent and intense advertising, that daily targeted their vulnerability in seniors magazines, on the television and radio. If placebo helped people, leave them alone. Some people even became angry with me. One elderly gentleman was even worried that his pain would return. As I seemed to have only one topic of conversation, I was losing friends rapidly.

Diagnosis and after

Then came my diagnosis of cancer. As the months passed I slowly returned to the land of the living. To take my mind off my treatment I wrote health booklets and developed the web site. On the positive side of this diagnosis, I met new people, surgeons, oncologists, general practitioners, pharmacists and other cancer patients and they were wonderful. I told them about my magnetic passion and my demonstration and offered to show it to them, but had

no takers. The dust settled on my beloved Gauss meter and as my web site gained popularity, I moved on.

The most amazing person I met in this phase of my magnetic journey was Brisbane pharmacist and fellow Skeptic Geraldine Moses. The locals know her as 'that woman on the radio' because she had a radio program that gave great advice to listeners for 13 years. Nowadays, she somehow balances a life where she mans the Adverse Events Hotline, runs CAM education, frequently appears on TV, has just finished a Doctorate of Clinical Pharmacy while supporting and assisting cancer patients, has a husband and two year old to look after and still found the time to re-write part of my health booklet, answer my emails, and encourage me on my own journey. During our numerous phone calls and emails, I told Geraldine about my passion for measuring magnetic underlays and of all the people in Australia she was the one to tell, because when *Brisbane Extra* asked for her advice in this matter she knew exactly what to do.

'Every dog has his day' they say and, when the phone call came through from Geraldine that Channel 9 wanted an anti-magnetic underlay enthusiast to appear on a Magnetic Therapy segment, I was going to have mine.

When the day arrived for the filming, as the floodlight beamed and the camera rolled I knew that this was a dream of mine come true and, no matter how silly I looked with my jellybean earrings bobbing around, no matter how close the camera came to my timeworn and expressive face and no matter what people would call me in the future, I was going to give it everything I had. As the film crew left after a two-hour interview, which incidently included a few minutes sitting on the bed comparing and revealing the jellybean and magnetic underlays, I knew I had done the best I could.

Two days, many phone calls and at least 50 emails later, (those emails informing friends, fellow sceptics, seniors newspapers and

websites and the Arthritis Association, of the content and time I was to be televised), the segment was aired. I had become the Jelly Bean Lady, a cancer survivor; the Physics and Maths graduate who championed the cause against placebo products for seniors, cancer and the financially challenged chronically ill patients. I was portrayed as a Don Quixote who was taking on, with humour, intelligence and science, the 5 billion dollar magnetic underlay industry. Fortunately for me, my video tape recorder was going, because at the end of the segment I remembered nothing except the bobbing earrings and the camera angle that seemed to look up my magnified nose. While I sat stunned, the champagne corks flew and my friends were cheering.

The next morning, I rewound the tape to watch it quietly on my own. With great relief and appreciation for a balanced presentation, I emailed Channel 9 thanking them for giving me the opportunity to appear on their show.

I never did and never will complete my 'topographical profile of a magnetic field of a magnetic underlay'; there just isn't enough magnetism emitted for me to measure. So now my life has settled back into its usual haphazard routine and I remain truly thankful to those champions that, over the last two years, have helped me paddle my own magnetic canoe. Now, with my jellybeans safely tucked away in a sealed jar, I'm asking myself whether this is the end of my new career or the beginning? Let me hope that in years to come I can say 'the rest is history'. That, dear reader, may well be up to you.



Spinach is a Good Source of What?

Cartoon characters are not necessarily a good source of nutritional advice



Glenn Cardwell, sports dietitian, regular Skeptic columnist and public speaker on meaty matters nutritional.

Spinach is one of those foods, along with Brussel's sprouts and pumpkin, that you were forced to eat as a child. Spinach originated in Persia and had spread to Europe through the 16th century. By the time that Clarence Birdseye had found a commercial way to sell frozen spinach, it had become a favourite of Popeye, a cartoon character who made his first appearance on 17 January 1929. Spinach gave Popeye his incredible strength and is credited with saving the US spinach industry in the 1930s by creating a one third increase in sales, according to the King Features website. Some people with extensive life experience may remember the Popeye song.

I'm Popeye the Sailor Man

I'm Popeye the Sailor Man

I'm strong to the finish

Cause I eats me spinach

I'm Popeye the Sailor Man

Depending on your era, you were told that spinach made you strong or that spinach was a good source of iron and calcium. Quite why spinach became promoted as a great source of iron and calcium, I'm not sure. If you take a look at the international food tables, 100 grams (1/2 cup) of cooked spinach provides about 3 mg

iron (Aust); 3.6 mg (US); or 2.1 mg (UK). Compare that to the daily iron needs of a man (8 mg) and young women (18 mg). That makes spinach sound like a great source of iron.

Unfortunately, spinach has a huge amount of oxalate, a compound that gives spinach its bitterness and helps protect the plant against excess minerals in the soil. The oxalate binds to iron to form a compound called ferrous oxalate, a compound that you cannot digest, hence the iron passes all the way through your digestive tract. Our gut absorbs a miserable 1% of the iron in spinach. Now, I wish I had known that when I was six!

The 1/2 cup cooked spinach also provides 160 mg calcium, the same as 150 mL milk. You can see why we are told that spinach is great for the bones. Although we absorb around 50% of the calcium in broccoli, cabbage and kale (Brassica family), and 30% of the calcium in milk and cheese, we get access to only 5% of the calcium in spinach. Like iron, most of the calcium in spinach is bound to oxalate and we don't have a digestive enzyme to break the bond, hence the calcium passes straight through the bowel. Unlike spinach, the Brassica vegetables do not accumulate oxalate.

Spinach

Nutrient	Iron mg	Calcium mg
Spinach, cooked 100g	3.0	160
Beef, lean 100g	3.8	5
Breakfast cereal, 45g (ave)	3.0	15
Peas, 1/2 cup	1.3	25
Milk, reduced fat 150ml	0	160
Cheese, cheddar 30g	0	240
Broccoli, 1 cup 30g	1.0	30
Baked beans, 1 cup	1.5	90
Recommended Dietary Intake (RDI)	18 - women; 8 - men	1000 1300 women > 55 yr

into the mouth. All up, about 5 mg of iron).

Spinach is good for something

Despite being a poor source of minerals, spinach rates as one of the highest antioxidant foods on the market, followed by chill pepper, red capsicums, turnip tops (yum) and mushrooms. Determining the antioxidant capacity of fruit and vegetables depends on the type of test you employ. Of the three assays used in one study, spinach was #1 for antioxidants twice.

You will have noted that we don't absorb all of the minerals from foods we eat. If we absorbed 100% of dietary minerals we would soon end up becoming a geology sample. In cases of mineral deficiency, the percentage absorption is higher than the figures quoted as the body adjusts to restock the low levels of the mineral.

The moral is that the mineral content of a food does not equate to its bio-availability. Certain compounds in other foods can reduce the iron and calcium absorption from the gut. For example, the tannins in tea will bind to iron to form the uncrackable ferrous tannate, hence the common advice to young women to avoid tea with meals. It is OK to have tea one hour either side of a meal.

Conversely, vitamin C containing foods will enhance iron absorption by converting the difficult-to-absorb ferric iron to the preferred absorption state of ferrous iron. This leads people to drink orange juice with meals, sadly forgetting that salads, fruit and lightly steamed vegetables also provide vitamin C.

Changing calcium and iron needs

In December 2004, the National Health and Medical Research Council released an updated version of the recommended daily calcium and

iron requirements to reflect recent research. Although still in draft form, the current world opinion is that we require more dietary calcium and iron than previously thought. For many years around 800 mg of calcium each day was recommended. This has risen to 1000-1300 mg daily, depending on your age (see table). About 7mg of iron a day for men and older women, and 12-15 mg of iron a day for younger women has now gone up to 8mg and 18mg respectively.

If you don't drink milk, due to an allergy, intolerance or dislike of milk, make sure you are getting adequate calcium from other foods. A favourite source is soy milk, but only if it has been calcium-fortified — check the label to make sure it has at least 90 mg calcium per 100 mL. Other non-dairy sources are sardines and salmon (the calcium is in the soft bones), almonds and Brazil nuts.

Your best sources of iron are animal foods (eg beef, fish, poultry), except for the egg which has ferric iron and dairy foods which have next-to-no iron. Vegetarians will get most of their iron from iron-fortified breakfast cereals, legumes, Brassica vegetables and bread. Milo has added iron, helping many teenagers get their iron needs (three teaspoons in the cup and, if there is no-one else in the kitchen, one teaspoon straight

Spinach is also a wonderful source of folate, linked to a lower risk of heart disease and dementia in adults, as well as being promoted to young women to protect the foetus *in utero* from neural tube defects like spina bifida. Spinach needs to be cooked quickly for the greatest retention of this nutrient. Boiling spinach for four minutes will halve the folate content, while steaming for three minutes does not cause significant folate loss.

In addition, spinach is high in beta-carotene. So, forget spinach for minerals — its value seems to be more for its potential to quell those maverick free radicals and keep heart disease, dementia and possibly cancer at bay.

Catherine de Medici left Florence, Italy, in 1533 to become the Queen of France at the age of 14 years. She was particularly fond of spinach and requested it on a daily basis, encouraging the royal cooks to create new dishes with spinach. Today, a dish made with spinach often includes 'Florentine' in its title to honour Catherine's home town, or so the story goes.

My tip

There has been a Popeye-inspired, parent-supported spinach conspiracy to get bewildered young children to eat a vegetable that has the flavour

profile of freshly mown lawn clippings. Is it a tool of adult domination, or is it a form of child abuse? OK, so I'm being melodramatic, but we shouldn't forget that spinach is a great source of antioxidants and vitamins. For that reason alone, the spinach pie can become a part of our longevity plan.

Finally, on parents being cruel to their kids: Clarence Birdseye, mentioned in the first paragraph, started the General Food Corporation specialising in frozen foods, later to become the Birds Eye company. He had a son. He called him Kellogg (yes, as in corn flake). Thankfully, someone must have spoken to him as he named his second son Henry.
www.glenncardwell.com

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Life Membership for Colin Keay

It was with great pleasure that, at the last Annual Convention, Australian Skeptics conferred on Professor Colin Keay the honour of Life Member for exemplary services to the scientific method and the cause of Skepticism.

Colin's long and distinguished career in astronomy and physics, included holding positions in the International Astronomical Union. His major contributions to measuring and understanding the meteoroid flux onto the Earth, culminated in having an asteroid named after him (5007 Keay, discovered in 1990). He is currently Honorary Research Associate in Physics at the University of Newcastle.

Colin has often chosen the path of responsible science when there has been a much easier path available. Oppose nuclear power and you will immediately have a large following, a route taken by community groups, some politicians, and even "experts". This has led to a large number of myths becoming ingrained into our culture, such as thousands being killed at the Chernobyl accident, hundreds of thousands being condemned to die of cancer, not to mention horrific birth defects. The resulting fear of anything nuclear has forced governments to continue building more coal-fired power stations, thus condemning thousands to die in coal mines and hastening climate change. However Colin visited a research station in the Chernobyl fallout area and has found out the facts. His *Nuclear Issues* series of books, including *Nuclear Radiation Exposed* are devoted to dispelling such myths, and presenting the science in terms anyone can understand.

In my job in a spaceport project, we had to report all environmental effects of launching rockets, and adopt measures to mitigate them. This included pollution in the interplanetary space environment. I was delighted to find a

familiar name on the international regulatory panel.

Nor has Prof Keay shied from novel or difficult problems. There was a two-century-old mystery involving reports that some people can hear a hiss while seeing a large meteor descend through the air in the distance, whereas sound waves would be expected to take many minutes to reach them. The problem was solved when Prof Keay showed (*Science*, 1980), by analysis and tests on 44 subjects, that low frequency radio waves could be generated in the fireball wake and then converted into sound in the person's skin or spectacle frames.



On the skeptical front, Colin joined CSICOP in 1979, and Australian Skeptics in 1983. He founded and has sustained the Hunter Skeptics for 19 years, and the Annual Conventions held there have always been a success. He is not averse to

setting up some trickery to show attendees and media how easy it is to deflect compass needles etc, hopefully Geller-proofing them.

In the 1990's Colin led efforts to debunk devices marketed with a claimed scientific basis. The first was the so-called "electronic antenna" for television sets, which was no more effective than a piece of wire. Then in 1998 followed "Pest Free", which claimed to repel cockroaches with magnetic fields (when was the last time you saw a cockroach keel over when it neared a power cord?). Colin tried for 4 years to prod the ACCC into action. Instead, Pest Free were granted \$42,000 of taxpayers money to start exporting.

The road to skeptical enlightenment is not always the easiest to follow, but Prof Colin Keay's skill and persistence over the decades has done much for the causes of science and Skepticism.

Ian Bryce

Some Faculty in Some Faculties have Lost their Faculties

**Comprehensively critiquing
critical comprehension
in the academy**



*Jef Clark, who teaches teachers how to teach, masquerades as an academic at Griffith University, and is the co-author of *Humbug!**

***Fallacy virus infecting egghead brains
shock!***

I have been a teacher in tertiary institutions for more than two decades. Over that time some of my attitudes and priorities have evolved and shifted. In particular, I have increasingly focused on a deeper treatment of fundamental intellectual skills — rather than chasing the chimera of ever-expanding content. Content is subject to ceaseless change and evolution. Sometimes this change is due to increased knowledge in a domain, sometimes this change has more to do with fashion, and the lure of the novel and innovative. In contrast, intellectual skills are essential tools which retain their utility over the long term, and enable new content to be tested, examined critically and placed on a firm foundation.

I find that I have to directly address intellectual skills in my teaching, because students may not have had much exposure to these skills in their previous studies. In my view, this was not always so. In my earliest years of tertiary teaching, when (for example) I named a common fallacy in my feedback on a student's essay, no supplementary explanation

was usually necessary. If I pointed out that a student had committed one of the “seven deadly sins” in a particular passage (begging the question, false analogy, false dichotomy, straw man, poisoning the well, special pleading, unfounded generalisation), I had no need to elaborate. No explanation of the fallacy, or justification of my criticism was necessary. Common fallacies were common knowledge, and once a student's attention had been directed to the fallacy, he or she rarely needed further explanation.

Incremental change is often difficult to pin down, so I couldn't say “when” knowledge about fallacies in thinking ceased to be a common currency of intellectual discourse among students enrolled in the arts, humanities and social sciences. My response to this incremental shift was itself incremental. I taught fallacies at whatever level I felt was necessary at the time. Informally and incidentally at first, but increasingly as part of the formally specified outcomes of my courses. I am still sometimes taken aback at the lack of common knowledge of such terms among my students (mostly third and fourth year students enrolled in a Bachelor of Education degree).

However on reflection, it is not really surprising that so many of my students have not been exposed to such concepts before. In order to have been exposed to such concepts, they would have to have been exposed to faculty who would themselves have to be familiar with such concepts. (I think I may have used too many haves in the preceding sentence.) On the anecdotal evidence at least, many academics are entirely unfamiliar with hitherto commonly understood fallacies. In some cases, they are not just unfamiliar with fallacies, they may even employ these fallacies with enthusiasm in their own writing and lecturing, and applaud the appearance of such fallacies in the writings of their students.

Some in-house documents at my university, and verbal exchanges at meetings at which I am present are liberally sprinkled with fallacies. Clearly, I can't give actual examples to back up my claims, you'll just have to take my word for it. Or not — please yourself. However, many profoundly flawed pontifications by deluded academics escape the academy, and can be savoured by interested observers. Almost every week I see or hear public statements by academics on social, cultural, and political issues which betray a lack of clarity of thought and quality of reasoning. Some of my students may not have encountered unreasoning academics in their previous studies. They are the lucky ones. The unlucky ones may have been subjected to a string of unthinking ideologues whose own education was defective. When academics are ill-educated, they are not really in a position to offer their students anything of substance or lasting worth. Given these circumstances, it is not really surprising that students' prior knowledge about fallacies in thinking when they enter my courses is unsystematic, piecemeal, incomplete or absent altogether.

The following excerpt is from a discussion thread on wacky academics. It was posted in May 2005 on a blog I visit fairly frequently for en-

tertainment purposes. The comment was prompted by a post on the surprising lack of education manifested by many of the well-credentialed. It summarises my perceptions well.

Actually, (this incident involving Doctor "X")... brings home the sad fact that these days, at least in the Anglosphere, you can progress right through the academic history mill and remain profoundly ignorant. One of the most ignorant people I've ever known had her PhD in history. She could blather about discourses and hegemony, but the lightest literary or historical allusion in conversation — the small change of cultural reference between educated adults — sailed a mile over her head, unregarded.

In the discussion to follow, I will use examples at various points to illustrate common types of problems in academe. The examples are essentially fictional, but have a roundabout and tenuous link to an actual situation which I have encountered, or a situation which was made known to me by a trustworthy colleague.

Well Duh!

Stan Dard-Twytt is an associate professor in the School of Social Work at Walladumpdung University (formerly Walladumpdung Technical High School and Teachers' College). He is appearing as an expert commentator on *Gotcha Sleasabag* — a television current affairs program broadcast in the early evening after the news. He has been asked to comment on the proposition that "we are wrapping our teenagers in cotton wool". His recommendation:

We should allow 12-year olds to walk, cycle and catch public transport on their own, because if we don't, we're creating enormous problems for them — in particular, how will they know how to do these things when they're 13 or 14 — or even 15! — if they don't learn how to do them when they're 12?

This infantile *non-sequitur* is trotted out with a degree of certitude

befitting the Oracle of Delphi. The presenter adopts an eloquent facial expression which manages to convey both gratitude for the good professor's appearance and awe at the profundity of the insight. She says: "Thank you so much Professor for your thoughts".

I happen to be watching. I am so engrossed in this exchange that it takes me some time to realise that my lower jaw is still hanging open. This is an example to be treasured. I am inspired. To write this article. The first, and easiest decision was the title: *Some faculty* (academics with little self-knowledge or general knowledge) *in some faculties* (chiefly the social sciences and humanities) *have lost their faculties* (critical thinking skills).

Serendipity, life history and critical thinking

As a first year undergraduate student undertaking an Arts degree at the University of New South Wales, I had the good fortune to be enrolled in a tutorial group run by Professor Frank Crowley, then Professor of History and later Dean of the Faculty of Arts. His tutorials were always a remarkable experience. Frank applied merciless scrutiny to the ill-considered assertions of under-prepared students. His "blowtorch to the belly" approach, once experienced, was never forgotten. A common tactic was to demolish a student's tutorial paper through relentless analytical questioning. Just when Frank seemed to have put forward a watertight case against the student's thesis, he would re-examine his own critique and expose the weaknesses in his own position. Students were never permitted to remain within a self-satisfied comfort zone. This approach taught us to examine every proposition carefully; to be very guarded in our opinions; and to carefully marshal facts, warrants and arguments before asserting a conclusion. Frank's tutorials were a heady mixture of anxiety and exhilaration. And in my own case, the lessons I learned about unwarranted assertions and

half-baked opinions have never been forgotten. In retrospect, I was probably very fortunate in experiencing this approach. Recent enquiries of other students who were enrolled in history at the same time as I was suggests that their tutors did not have similar effects on them. Do dud tutors equal dud history?

At the University of NSW at that time I also studied a compulsory subject called *History and Philosophy of Science 1*. It was a subject I had no prior interest in, and would not have studied without compulsion. It was compulsory for all arts students because it was UNSW policy at that time to ensure that all undergraduate students should have some basic knowledge in domains they would not normally encounter in their degree programs. HPS was burdensome to many of my arts degree peers, but proved to be the most interesting course I have ever studied, and it led to a sub-major and a long-standing interest in epistemology in general, the epistemology of science in particular, and the evolution of science as an intellectual and practical enterprise.

Perhaps the nature and extent of my exposure to critical thinking — particularly the capacity to recognise fallacies in informal logic, was a matter of serendipity rather than an inevitable consequence of standard curriculum content and widespread consensus among educators on foundation skills. My background may have led to me to suppose that most, if not all students who had completed secondary school and one of two years of university study (at around the same time as I had done), would have been exposed to critical thinking at a comparable level. Perhaps not.

Perhaps I gravitated towards learning experiences which placed a high priority on argument and critical thinking. Or perhaps I had a readiness to absorb such material and incorporate such skills into my approach to learning. It may be a little of both. My interest in argumentation, argument analysis and techniques of persuasion may have

led to my seeking involvement in debating — as a participant when I attended high school, and as a debating coach when I taught at high school. In turn, my experiences as a participant in, and coach of debating may have led to a heightened awareness of fallacies in thinking. Of course, my friends and colleagues have suggested that my motivation in volunteering so readily for debating was an aversion to sport. I maintain that my motivation was attraction to debating rather than avoidance of any form of physical activity (although the latter is still an important priority for me).

Some reflections on the parlous state of the written assignment

I use the broad label “written assignment” rather than the more usual “essay” in the subheading above because to some traditionalists, the use of “essay” to describe a typical undergraduate effort is tantamount to blasphemy. In my own case, I use “critical commentary” in preference to “essay”, as this designation for the written assignment unambiguously captures my intent. A critical stance is expected in all assessment components and all learning activities in all of my courses. The following is an excerpt from one of my course outlines, which summarises my general position.

A note on the approach to teaching and learning used in this course

Students will be expected to critically appraise the topics covered in this course. Content on the topics covered will be encountered in the assigned text, required readings, the workbook, other supplementary materials, the students' own research, lectures, seminars, workshops and assessments. Whenever such content is discussed, read or written about, students should analyse and evaluate the material, not simply accept it at face value. Explicit guidance on critical thinking skills will be given to students throughout the semester. All students are expected to employ those skills in all learning tasks.

The type of written assignment I set is also calculated to reduce the likelihood of my students engaging in one of the cruder forms of plagiarism — recycling or trading of assignments. The scale of plagiarism in Australian universities is largely unknown, but anecdotal evidence suggests that it is widespread. Electronic detection systems can be used to check text-matches between student assignments and pre-existing material on the web, but the availability of such systems is sporadic at best. In my Academic Activity Log for 2002 I raised the problem of plagiarism, and indicated that I intended to implement a partial solution. The relevant extract is quoted below.

I... set assignments which are unique to my courses. In effect, all essay-type assignments I now set involve critical analysis of one or two specified articles (rather than a more generic topic). It is widely known among those who investigate these matters that generic topics are traded widely.

It should be noted that the critical commentary is unlike a typical essay in another respect. A typical essay is often about the student demonstrating skills in retrieving information and synthesising information from a large number of sources. It could be said that this is the *zeitgeist* of essay-writing in a postmodern context. The critical commentaries I set mandate a very restricted set of resources. I like to think that my students are digging for gold (deep analysis of a few sources) rather than piling up the manure (synthesising a point of view from a large number of sources). I distinguish my approach by characterising it as “pre-ancient”. An essentially meaningless term which I coined for no better reason than to position myself as far away from postmodernism as it is possible to get. I also enjoy a good pun.

The critical commentaries I set thus avoid one potential source of plagiarism — recycling of assignments — because the topic of the

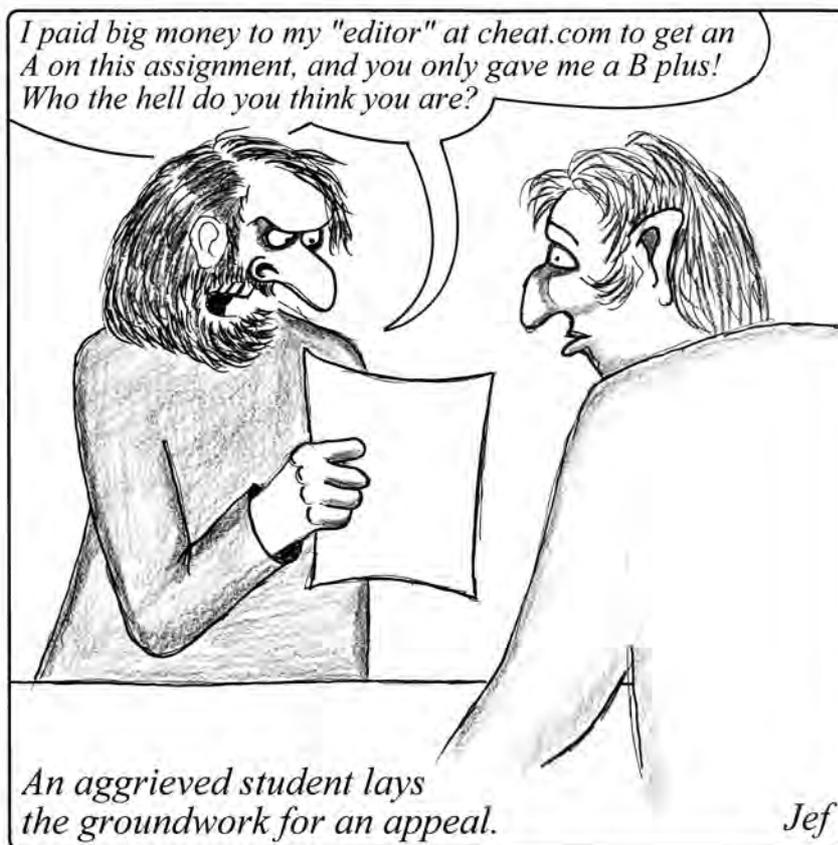
essay in any particular semester is very likely to be unique. A critical commentary on three specified articles on motivation for example, is specific to those articles. An essay on motivation *per se* on the other hand, is likely to be set year after year in a very large number of teacher-education courses worldwide. Such essays can be stored in retrieval systems and traded.

However there is another problem which I can do nothing about — delusional or consciously fraudulent use of a co-writer, “editor”, or ghost writer. In preparation for this article I followed up on a dodgy A4 flier posted up on open-use notice boards all over my campus. The flier offered an “editing” service for students. It described the service in general terms, and incorporated tear-off tabs with website address and telephone contact number. Many students had clearly responded to these notices, as most tear-off tabs had been torn off. I logged on to the website to see what was on offer. The following testimonials from students who had used the service were interesting.

I got 37 out of 40, which is 93% in Psychology... now I am proud and very satisfied paying the fee and receiving such an incredible reward from my lecturers.

I got my essay back. I got an A. The Professor said the essay was very well written. Thank you.

I can only say that this was the best \$330 I have spent this year — I



should have sent you my work earlier... the difference from a professionally edited paper is the difference between a B and an A.

Thank you so much for editing my thesis. I have checked the thesis with my supervisor and we noted a big difference between the original and the edited version.

I have fairly poor writing skills... What a nice job you have done for me. Thanks again for helping me!

Your team did a superb job with my last assignment, I received 90% for it!

I am very appreciative of what my editor did for me. My assignment looks much better than it was. It is more critical and fluent. My unit coordinator has criticised my lack of critical thinking in the past so I am very pleased with the editing.

I received my summer result yester-

day and I got a distinction! Thank you!

Thank you! Thank you! Thank you! Thank you! Essay reads wonderfully, you guys are miracle workers!

Thank you very much for your wonderful service. I am sure that I will be using your service throughout the 5 years of my uni life.

It's difficult to tell in some cases whether the student making the particular comment is consciously engaged in fraudulent conduct (and shamelessly celebrating the fact); or merely deluded. For example, the

comment “I am proud and very satisfied paying the fee” might suggest pride derived from successfully deceiving the marker, or pride in engaging in a successful collaborative effort (it's all about *the quality of the assignment people*, not nit-picking and quibbling about *whose brain wrote how much of it*).

Some faculty may not be in a position to judge the quality of student work

In order to foster truth-seeking in their students, academics need to be truth-seekers themselves. Truth-seeking involves both a habit of mind (a disinterested search for truth) and a set of intellectual skills (the capacity to make a distinction between Shinola and another substance with a similar colour and texture). At my university for example, there is a policy on generic skills. These are skills which are deemed to be so important that all faculty in all faculties must take responsibility for addressing these skills in their courses — no matter what the substantive content of the

course. One such skill is analysis and critical evaluation. But what if some faculty are lacking in this faculty? Academic staff who themselves lack a capacity for critical thinking would in my view be unable to foster such an outcome in their students. Perhaps they would not even be able to recognise such an outcome if they saw it. Perhaps some would even penalise any threatening outbreak of critical thinking in their students.

The woolly-headed excesses of academics in Australia and elsewhere are well-known to many in the “community of skeptics”. The Sokal hoax for example, became the subject of mainstream reportage, and was widely celebrated by dedicated debunkers. Skeptics would also enjoy a visit to Australia’s Wackiest Academic Websites to trawl for examples of academics and graduate students engaging in unconscious self-satire. Some representative titles:

The space of the urinal;

The phantasmatic dimension of embodiment among German cross-dressers;

Tattooing is just a literalist process of marking and being marked, which is really what life is;

What an arse can do: affect, time, and intercorporeal transformation;

Queering the city: sexuality, urban space and commodification;

Freaks. A study of human anomalies.

While some of these titles might have disguised a worthwhile article, my suspicions about the quality of reasoning were confirmed when I downloaded and read many of the articles. The articles were clearly intended to be serious contributions to knowledge, but in fact they are largely indistinguishable from a deliberate hoax. The writers of these articles presumably presume to assess their students’ own writing. It

could be argued that on the evidence of some of these articles, they are not in a position to do so. For those skeptics with a hankering to hoax, it is now very easy to write a completely bogus article using software thoughtfully provided on websites such as *Postmodernism Generator*. It’s worth a visit, just to get a handle on the genre. Some contextual information from the site:

The essay you have just seen is completely meaningless and was randomly generated by the Postmodernism Generator. To generate another essay, follow this link. If you like this particular essay and would like to return to it, follow this link for a bookmarkable page. The Postmodernism Generator was written by Andrew C. Bulhak using the Dada Engine, a system for generating random text from recursive grammars, and modified very slightly by Josh Larios (this version, anyway. There are others out there). This installation of the Generator has delivered 1634040 essays since 25/Feb/2000, when it became operational.

It is easy to poke fun at obviously absurd academics pursuing absurd arcana and delusional agendas. That is why I do it. However, deluded academics who might seem reasonable on casual acquaintance, or whose papers might seem credible on first reading are of more concern. I will now recount a heavily disguised example by way of illustration. The example is faithful to the original in terms of the extent and character of the woolly thinking exhibited by the academic in question. However it is sufficiently removed from the original to avoid any possibility that the person, faculty or institution could be identified. Having said that, if any readers of this article believe that they know who the person who inspired this example is, they are invited to contact me and name the person. If they guess correctly, I may confirm the guess or I may not. If they guess incorrectly, I may lie and say that

they have guessed correctly — or I may not. It really depends on my mood at the time.

An instructive case

Eunice Eagerbeaver and the great Haiku scam

Eunice Eagerbeaver is a senior lecturer in Nursing at Walladumpdung University. She is very keen on poetry, and finds that reading and writing poetry is a solace to her when she is feeling low, and an inspiration to her when she is feeling high. Her favourite form is the Haiku. She thinks that everyone could benefit from more poetry in their lives. She believes that the only reason more people don’t read and write Haiku is because they are ignorant of its benefits. She is a proselytiser for the form, and uses every opportunity which presents itself to persuade others to her view.

She has recently won a research grant which she believes will “really put Haiku on the map”. In her application, she states that she will examine the effectiveness of Haiku as an aid to reflection on praxis by student nurses. She will test the hypothesis that the composition of Haiku by student nurses after a nursing shift will help them “internalise their experiences, and prompt deeper reflection on their praxis”. As it happens, the panel reviewing research grant applications has enough arts wankers on it to ensure the success of her application. The funds will allow her to recruit paid volunteers from among her nursing students — her “subjects” for the research are all students in her classes.

She puts out the call for volunteers in her actual classes, and the following week she has ample recruits to the study. She distributes a booklet on writing Haiku and a Haiku Diary to her volunteers; and gives them two tutorials on the form. In her tutorials she can’t help proselytising on the benefits of Haiku, and canvassing her hopes

for the study. She seems unable to distinguish between “testing a hypothesis” and “hard-selling a hypothesis”.

The subjects go off for a four-week field placement in hospitals all over the state. They are expected to write a single Haiku poem after every shift, which “captures” their emotional and intellectual responses to their experiences. Nick Boodle, one of her subjects was too tired after a long shift to do what was required of him.

However he and his girlfriend didn't want to miss out on the money, so his girlfriend wrote the poems and Nick signed them. Nick wasn't bothered by ethical considerations because he was pretty sure the study was inconsequential, and fatally compromised by poor design and implementation from the outset.

Nick duly presents himself along with his Haiku log for the data-gathering interview. The interview is conducted by Eunice the Haiku enthusiast. Nick is asked open-ended questions about the utility and value of the Haiku-writing experience — as a means of gaining insights into his nursing practicum. The questions are leading, suggestive of the “right” response, and the demeanour of the researcher can be read like an open book. Eunice is obviously keen when Nick's comments affirm the value of Haiku. Nick's only awkward moments come when he can't remember the gist of some of his girlfriend's Haikus. He fakes it, and both researcher and subject are pleased with the outcome of the interview. Eunice gets the right results, and Nick gets the cheque. Nick is also mindful that he



has yet to submit his essay to Eunice, and that she will be marking both his essay and exam. His view is that it could be problematic for his progression in Eunice's course if he is brutally frank and expresses his real feelings about the utility of Haiku poetry in encouraging reflections about his nursing.

In due course, Eunice writes up her research and submits her thesis. The thesis examiners are prudently chosen by her thesis committee and she is duly awarded her PhD — some two years after the research recounted above. She continues her investigations into the effectiveness of Haiku poetry in promoting high-level reflections and deep insights into nursing praxis. In due course, and after diligent self-promotion and relentless networking, she gains an international reputation and promotion to full Professor. Haiku journals are now a mandatory feature of all practicum programs at Walladumpdung, and Eunice is often asked to act as an external paid consultant when other universities attempt to implement her approach.

Academics are just like people – flawed

Academics, like other people, have opinions. Also like other people, they like their opinions to prevail. Some academics may use their presumed status as disinterested scholars to add weight and apparent credibility to their opinions. Nowhere is this more strikingly evident than when an academic with high honours in (say) quantum physics, trades on those honours when he or she presumes to comment on entirely unrelated fields such as social welfare, drink driving, aged pensions, free range eggs or the

Catholic Church. In my view such academics are often encouraged to pontificate on matters beyond their remit by the unwarranted respect accorded to their half-baked musings by a compliant media.

While most academics are just like people, there is a larger proportion of strange people among academics than would be found in the general population. Many academics: (a) manifest subtle abnormalities in social interactions; (b) are often preoccupied with narrow and obsessive interests; and (c) may manifest abnormalities of personality (such as a highly idiosyncratic sense of humour). This is in fact a description of Asperger's Syndrome. It's nice to know that if treatment can't be found for this syndrome, sufferers will find a sympathetic setting in which to live out their lives (as faculty in a faculty).

When I first began to masquerade as an academic (I only pretend to have Asperger's Syndrome in order to blend in), I presumed that my co-workers would be unusually intelligent, and well-educated. While some are, many are not. I soon found that

my colleagues were in fact very diverse (apart from the unusual frequency of Asperger's Syndrome). Even seniority in academe proved not to be an infallible indicator of high levels of intelligence or breadth of education. Seniority seems to me to be primarily a function of: (a) a capacity for hard work; (b) a high tolerance of boredom; (c) an unquestioning compliance with institutionally specified criteria for promotion; and (d) a severely circumscribed social life. A high level of intelligence could help in gaining seniority, but it is clearly not essential. On the other hand, a capacity for critical thinking could be a distinct disadvantage. But I would say that, wouldn't I.

While many of my comments above might seem like special pleading, they are not. Trust me — these comments are based on subtle insights — if you can't see that, then I can't help you. If you had my fine sensibilities you would realise that this is not an outrageously blatant instance of special pleading.

Academics in vocationally-oriented degree programs have potentially greater credibility problems than those working in more theoretical or conceptual domains. I am a lecturer in a teacher education degree, and I teach classroom management. While I honestly think that I was an effective teacher in my time, after so many years in the sheltered workshop (academe), I would hate to have to manage a difficult junior high school class under the critical scrutiny of my students. Fortunately I don't have to. I simply tell my students what they should be doing when they begin their five week practice teaching block. If what I tell them to do doesn't work, that's their problem.

Teacher-educators are not the only academics with this fundamental credibility problem. A lecturer in Justice Studies telling operational police how to do their jobs, or a lecturer in Business Studies telling students how to get rich have the same problem. In fairness to aca-

demics, this type of credibility problem is commonplace beyond the academy. There are plenty of literary critics who could never write a novel, and plenty of theatre critics who can't act, direct or produce a play.

Humbug-hunting students may be able to foster critical thinking in faculty

Academe can be a rewarding and enjoyable trade, but one needs to have the right attitude. I think my enjoyment is founded on a well-honed sense of the ridiculous, an appreciation of unconscious irony, a readiness to engage in shameless hypocrisy, and a commitment to subverting the dominant paradigm. All of these foundations of my enjoyment are enabled and facilitated by the book I wrote with my son Theo (*Humbug! The skeptic's field guide to spotting fallacies in thinking*). Readers of *the Skeptic* journal over the last year or so may be familiar with the nature of the book, and our intentions in writing it. So I won't reiterate such matters here (more information is available on the website of The Australian Sceptics www.skeptics.com.au). However, I will say that I have used the new edition of *Humbug* for the first time this semester in my teaching, and it seems to have created a small cadre of humbug-hunting students. Whether these students use their humbug-hunting skills for good (subverting the dominant paradigm) or evil (winning arguments) is up to them. However anecdotal evidence suggests that some faculty who encounter these students in their future studies might be in for a rude shock — and in the process might gain some knowledge and skills in critical thinking. I will leave it to some of my students to have the last word.

Selected student responses to an open-ended question which asked students to comment on their reflections on teaching and learning (semester 1 2005).

My suspicions about academic writing have been validated.

As for understanding fallacies in arguments I have to say that now I cannot watch the news or read a newspaper without identifying fallacies in their articles or their reporting. I appreciate the time taken... to assist us in identifying these fallacies within an argument.

It was not until this course that as a student I experienced first hand the importance of deconstructing what one is reading. By reading Humbug! I feel as though I have been given insight into the many styles of writing I as a teacher will face.

This semester has also opened my eyes to academic writing, and how a lot of what we read can be outright rubbish. This is due to the lack of research and made up arguments leading the reader to false conclusions.

Finally, I found learning about the fallacies that academics and others occasionally try to use helpful as this will help me to be more cautious when told something in the future, to not just accept it, and to give a name to things that don't sound or read quite right.

With the Humbug activities I learnt how to deconstruct other peoples' rhetoric with precise tools for labeling what I previously only felt at an instinctual level. Of course newspaper articles and TV reporting contain glaring errors, but the deconstruction of academic writing was the most fun. Being able to tear down an emeritus professor is not something I would have attempted before.



Anti-Vaccination Ratbaggery

Seeking to find facts from fanatics is frequently futile



Ken McLeod is a retired Air Traffic Controller and Search And Rescue Co-ordinator. He is now a boutique farmer on the NSW South Coast and recently lost his whole flock of livestock when both his sheep died.

I knew that the Australian Vaccination Network (AVN) are dedicated to bringing the latest science on vaccination to the public. I knew this because the AVN said so, and they would never lie, would they? The AVN claim on their website¹:

The majority of our information is from mainstream medical sources — the same sources that doctors need to access before advising their patients.

And:

Information is based on the best available resources.

Now some unkind people call me naïve, bringing up yet again the anti-gravity machine I bought from a man in a pub², and scoffing at my acceptance of what the AVN say. So in an idle moment, (which doesn't occur very often if one is a farmer whose life's work is dedicated to getting the most out of every government subsidy for farmers), I checked out what the AVN thought of a recent major article in the *New Scientist* issue March 5, 2005³ "Autism rises despite MMR ban in Japan" which begins:

A study of more than 30,000 children in Japan should put the final nail in the coffin of the claim that the MMR (combined measles mumps and rubella) vaccine is responsible

for the apparent rise in autism in recent years.

It goes on to say:

The study shows that in the city of Yokohama the number of children with autism continued to rise after the MMR vaccine was replaced with single vaccines. ... "The findings ... are resoundingly negative," says Hideo Honda of the Yokohama Rehabilitation Center.

With his colleagues Yasuo Shimizu and Michael Rutter of the Institute of Psychiatry in London, Honda looked at the records of 31,426 children born in one district of Yokohama between 1988 and 1996. The team counted children diagnosed as autistic by the age of 7. They found the cases continued to multiply after the vaccine withdrawal, ranging from 48 to 86 cases per 10,000 children before withdrawal to 97 to 161 per 10,000 afterwards. The same pattern was seen with a particular form of autism in which children appear to develop normally and then suddenly regress — the form linked to MMR by Wakefield⁴.

Honda concludes that the vaccine: *cannot have caused autism in the many children with autism spec-*

Anti-Vaccination Ratbaggery

trum disorders in Japan who were born and grew up in the era when MMR was not available

I was sure that such good news would be headlined on the AVN website, shouted from the rooftops no less. Here was the evidence that any responsible parent needed to proceed with vaccinating their child against those devastating, sometimes, deadly, diseases. Strangely, despite my faith in the Anti-Vaccination Network, I could find no mention of the good news on the AVN website, just the same old stuff like:

... there will be some very interesting research released over the next couple of months regarding the connection between MMR vaccination and the development of autism ...

No mention of the *New Scientist* article and no mention of the original report published in *Journal of Child Psychology and Psychiatry*⁵. So, putting this week's application for a government subsidy in the pending file, I did a little bit of Googling and found that the same news, quoting extensively from *New Scientist* and the *Journal of Child Psychology and Psychiatry*, had been widely published by such organisations as:

- Archives of Disease in Childhood⁶;
- UK National Health Service⁷;
- World Health Organisation⁸;
- Institute for the Advancement of Social Work Research⁹;

- The Howard Center for Family Religion and Society¹⁰;
- The Schafer Autism Report¹¹.

Strangely, also, there was also no mention on the AVN website of an earlier ABC *Health Report* article of Tuesday July 22, 2003 titled "Autism, MMR vaccine link dismissed in study"¹². No mention also of the research papers listed by the Australian Dept of Health and Aging in their paper "Immunisation Myths"¹³ showing no link between MMR vaccine and autism. Indeed, the Internet is awash with scientific reports¹⁴ dating back over seven years, debunking the supposed link between MMR vaccine and autism.

Even stranger, there was no mention on the AVN website that Wakefield's findings have been disproved by further studies and that it was revealed later that when he published his paper he failed to reveal that he was taking money from the UK Legal Aid Board, which was paying him to discover, on behalf of parents hoping to sue for damages, whether or not the jab was harmful. No mention also that in November 2003 Dr Simon Murch — one of the co-authors of Wakefield's 1998 paper — stated in a letter to the *Lancet* that there is now 'unequivocal' evidence that there is no link between MMR and autism.

There was also no mention by the AVN of a comparison between the risks associated with the MMR vaccine and catching the diseases. The UK NHS has published this as fol-

lows¹⁵ comparing the risks associated with the MMR vaccine with the risks of measles (see table below).

But the AVN website did say:

Some countries such as Japan have stopped using the combination vaccine because of the increased risk.

Now, with a little more Googling even a klutz like me can find out that's not true. I found that Japan withdrew the MMR vaccine in April 1993 (five years before Wakefield's paper) because of the *perceived* risk, following reports that the anti-mumps component was causing meningitis, not because of an "increased risk" as the AVN would have you believe. To the AVN, there might not be much difference between "increased risk" and "reports", but to a rational person, there is quite a difference. I have received reports of leprechauns at the bottom of my garden, but that doesn't mean they are there. Those responsible for public health may take pre-emptive action on the basis of "reports" and then research the issue until it is better understood whether an increased risk does or does not exist, then they make appropriate decisions in light of the evidence. That does not validate the AVN's claims of "increased risk."

So what was going on at the AVN? While not many people make a habit of reading everything from the Institute for the Advancement of Social Work Research over their breakfasts, *New Scientist* can be found in every newsagent, the ABC on every radio, and the Australian Dept of Health's

Table 1. Comparing vaccination and non-vaccination risks.

Condition	Children affected after catching measles	Children affected after first dose of MMR
Convulsions	1 in 200	1 in 1000
Encephalitis or Meningitis	1 in 200 to 1 in 5000	Less than 1 in a million
SSPE (Subacute sclerosing panencephalitis) ¹⁶	1 in 8000 for children under 2	0
Death	1 in 2500 - 1 in 5000 depending on age	0

paper on every PC. Surely an organisation who claims the majority of their information is “from mainstream medical sources and is based on the best available resources” would make an effort to keep up with health research publications. My faith in the AVN began to crumble.

Flummoxed bewildered befuddled and confused, and feeling just a little betrayed by my heroes in the AVN, I contacted the AVN by email on March 19, 2005 and asked why they still peddle the line that MMR vaccine is linked to autism, quoting the *New Scientist* article in full, complete with colourful graphs. I never got a reply, so some people might be tempted to think that, yes, I was naïve (again) to believe them, and that the AVN is incompetent, comatose, lazy, illogical, unreliable, biased, dishonest, all of the above, or just ratbags. Certainly, they are still, (when I last checked on 23 April 2005), publishing “information” that is deceiving parents and risking the health and lives of children.

John Maynard Keynes is reported to have said “When someone persuades me I am wrong, I change my mind, what do you do?” I have come around to the view that the AVN cannot be trusted to tell the truth and is a pack of incompetent stubborn fools, as all the evidence I found supports that. More importantly, will the AVN, confronted with the evidence, change their views? Of course not; members of the AVN will use the same logical processes as members of the Flat Earth Society and will continue to publish this rubbish, and that is despicable.

Discarding the advice being offered by the AVN as total ratbaggery, I wondered what my heroes at the Australian Homoeopathic Association thought of the latest good news on the MMR vaccine. Strangely, the Australian Homoeopathic Association (AHA) advise that:

*... a healthy child will rarely be adversely affected by most infectious diseases (such as measles, mumps and rubella)...*¹⁷

Now, one look at the table above on the adverse outcomes of measles will tell you that that is not true, but I suppose it depends on what your definition of “rare” is. To me “rare” means a very low percentage, to someone else it may mean “anything that doesn’t happen in my family.” Any doctor will tell you that while the percentage of adverse outcomes of measles may be small, in a population numbering millions, the overall number of adverse outcomes will be large. The AHA goes on to recommend homeopathic prophylaxis and also recommends:

Those (homeopathy) practitioners who seek an up-to-date source of vaccination information are encouraged to access the Australian Vaccination Network (AVN) website: www.avn.org.au.

So round and round we go. Out of date, deceptive, and highly damaging information and advice continues to be peddled on the web, with so-called alternative practitioners reinforcing each other’s bizarre beliefs. I wonder if any of them could be persuaded to buy an anti-gravity machine.

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10. The Howard Center for Family Religion and Society www.worldcongress.org/WCFUpdate/Archive06/wcf_update_610.htm
11. The Schafer Autism Report www.sarnet.org/
12. abc.net.au/science/news/health/HealthRepublish_907211.htm
13. http://immunise.health.gov.au/myth_measles.pdf
14. See the UK’s National Health Service website listing many such reports at www.mmrthefacts.nhs.uk/library/research.php
15. www.mmrthefacts.nhs.uk/library/subacute.php
16. Subacute sclerosing panencephalitis (SSPE) is a delayed complication of measles that causes brain damage and death. It is a rare condition that can develop some years after natural measles infection. People who were infected at a young age are at most risk from developing SSPE. The average time between someone having measles to the first symptoms of SSPE is around 8 years, and death invariably follows.
17. www.homeopathyoz.org/downloads/AHA%20HP%0Statement.pdf



A Bunch of Theocrats?

Brig Jim Wallace and the Australian Christian Lobby

To be or not to be a theocrat
– that is the question

Brigadier Jim Wallace runs a Religious Right organisation called the Australian Christian Lobby (ACL) — for some background on this group, see www.unbelief.org/fundies/acl.html. In an ACL paper dated 13 May 2004, Wallace claims that:

There is no sense in [ACL's] vision of our wishing to see Australia a theocracy, but merely wanting to re-establish the rightful influence of those who believe in our Christian heritage.

In my opinion, Wallace would in practice like to see a Christian theocracy established in Australia and in this article I will explain why I think so.

What is a theocracy?

The *Shorter Oxford English Dictionary* defines 'theocracy' as follows:

A form of government in which God (or a deity) is recognised as the king or immediate ruler, and his laws are taken as the statute-book of the kingdom, these laws being usually administered by a priestly order as his ministers and agents ...

Let us examine this definition clause by clause, relating them to the beliefs of the ACL.

There is no doubt whatever that Wallace regards his Christian God as the 'King' of the universe, including Australia. This quote is typical of his general approach:

[W]e, Christ's ambassadors, will not sit by and allow our King and his Kingdom's values to be demeaned ... This newsletter is full of challenges, each one an opportunity, if the Church will simply stand up and honour its King in the political domain

(*ACL Newsletter*, Feb. 2004, 1).

'Kingdom values' are more often referred to by Wallace as 'Christian values', or sometimes as 'Judaeo-Christian values' (or 'principles' or 'ethics'). These terms are almost never defined: indeed, it would be politically unwise for the Religious Right to try and define them for a general audience. Upon examination, 'Christian values' are very like non-Christian values — 'Be nice to other people' etc. — unless you happen to be a Religious Right-type Christian, in which case 'Christian values' become very extensive indeed eg, 'wives should invariably submit to husbands' etc.



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Values and Government

Let's look at two ACL documents bearing directly on the question of 'Christian values' and the role they should play in Australian politics and government. As regards the issue of theocracy, these mini-essays speak for themselves. The first is entitled "Australian Christian Lobby — Submission — Political Honesty Bill" and it was available on the ACL's website — www.acl.org.au — during August 2002:

... [O]ur ethical foundation [is] in the Judaeo-Christian ethic ... [O]ur national political heritage is decidedly Judaeo-Christian ... For a Christian country [ACL regards Australia as such], the example in leadership is Christ, and although we will inevitably fall short of his example, it is an appropriate standard by which to measure any leader ... Legislating political honesty should therefore include means by which individuals desiring to enter parliament are apprised of the responsibilities expected of them both corporately and individually. These values should be drawn from scripture and could be specified by a working party of politicians and nominees from various Christian Churches. (1-4)

Paragraph by paragraph we see the specifically Christian theocratic mindset clearly revealed:

At the heart of this submission, therefore, is the fundamental imperative that a Charter of Political Honesty be grounded in the objective moral truths contained in the Scriptures. [The text here contains a reference to the work of David Noebel, a theocratic American writer.] For the purposes of the submission, moral absolutes are defined as that set of principles which exist above and beyond the opinions of men, and which thus provide an objective yardstick against which all considerations of ethical behaviour can be measured and evaluated ... The idea of having political honesty based on the nature and character of a righteous and just God is far supe-

rior both theoretically and practically to any attempts at building standards of political conduct based upon the quicksand of moral relativism. (4-5)

According to the OED's definition of 'theocracy', a particular god's laws are to be 'taken as the statute-book of the kingdom'. We're getting pretty near it in this ACL submission, but let's see if we can draw even closer:

Consistent with the biblical teachings on honesty, our politicians must be men and women of character — that is, of proven integrity — whose words and deeds are beyond reproach [note the sacerdotal, even semi-divine nature of the ACL's politicians] ...

Moreover, they must recognise — as our founding fathers clearly did [this assertion is based on a mythological Religious Right view of Australian history] — the one condition that God imposes upon this or any nation: the obedience of its people, and more particularly its leaders, to the will of God and His teachings. (6)

ACL's recommendations in this submission include the following:

That the Office of Commissioner for Ministerial and Parliamentary Ethics have either: (1) a theologian trained in Christian ethics as a permanent staff member and/or (2) access to the advice of prominent Church leaders in reviewing issues that come before it. (6)

They look suspiciously like Christian commissars to me, but let us move on.

Dr L J M Cooray

The second document is essentially a series of notes prepared for the ACL by Dr L J M Cooray of Sydney. The paper is headed 'Christian values and ethics' and was available on the ACL website during October 2003. The introduction declares that this material 'provides an excellent spiritual basis to underpin the work of the Australian Christian Lobby'. While the notes do not directly ad-

dress the question of theocratic government, they give a good idea of the ACL's indebtedness to its large Pentecostal component. Read in conjunction with the previous document, this paper also allows the reader to draw conclusions about the kind of political system that Wallace and his friends wish to see established in this country:

The Bible is the inspired word of God. The Bible is infallible. The Bible is above and beyond anything which comes out of human knowledge, science and research. (2)

God may confer on a person delegated authority over his neighbour. God in the Bible has delegated authority to: (i) Kings and governments; (ii) Husbands; (iii) Parents; (iv) Masters; (v) Elders; (vi) Apostles, Prophets, Evangelists, Pastors and Teachers [this is the 'Five-fold Ministry' promoted by a modern version of Pentecostalism]; (vii) Believers. All of these classes are responsible to God for the manner in which they exercise authority [Note: including 'Kings and governments', responsible directly to God] ... Grace, Faith, Love and Truth, working together, will lead to the final stage of revival, widespread healings and miracles, signs and wonders. (3)

Jim Wallace himself is a Baptist but belongs to a class of Baptists who share a good deal of common theological ground with Pentecostalism. He freely admits that fully half of the ACL's support derives from charismatic-Pentecostal churches — <http://www.sightmagazine.com.au/stories/Interview-JimWallace-1.4.2003.php> — and that:

churches such as [Sydney's] Hillsong are at the forefront of a growth in "traditional" Christianity and values.

(ACL media release, 15 Jul. 2004)

Influential elements of 'new' Pentecostalism are very theocratic indeed and the ACL seems to have uncritically incorporated this thinking into its own ideology (or 'world view' as Wallace prefers to call it.)

Wallace's world view

Wallace first became involved with the Australian Christian Coalition (ACC), the earlier incarnation of the ACL, in 1996 — www.sightmagazine.com *op cit* — several years before he left the Army — and seems initially to have been fairly selective in the ideas he picked up from the American Religious Right. He appears to have some sort of commitment to a Christian social justice agenda, but this interest has recently been swamped by the anti-gay, anti-abortion, pro-censorship paranoia emanating from both Australian and American religious fanatics. Wallace's political views are now practically indistinguishable from those of other Religious Right leaders, both here and in America.

It's important to understand that, like many other such people, Wallace believes that he receives political instructions directly from God. Here is his explanation of why he decided in 2000 to leave the Army and take up his ACL post:

What sealed the issue for [me] came one Sunday in church when the pastor preached that people have to be prepared to lay down golden crowns if they want to change anything in the world. 'Up until then I had said to God, 'if you want me to do this lobbying then stop promoting me in the Army.' At that point, I realised that I had to be prepared to lay down a golden crown — and the position of General was a golden crown.

(*Challenge* monthly Christian newspaper, Mar. 2003, 3)

The central policy positions adopted by Wallace and his group, being divinely sanctioned, are entirely non-negotiable:

Our objective at the ACL has always been to be openly Christian and non-compromising on issues of faith that we hold so dear ... [W]e ask that you keep us in your prayers as we do the work of our Lord and Saviour.

(*National Newsletter*, Feb. 2003, 2)

Remember that for Wallace and his allies, 'compromise' means 'to make a deal with the Evil One' in the form of the abortion or gay lobbies etc, and is thus viewed as totally unacceptable. This unwillingness to compromise is one of the most important features distinguishing theocratic lobbies from 'normal' political groups. It is also strongly implied in the ACL's regular references to its promotion of 'the Christian view' on such issues as transgender rights, euthanasia etc, as if all Christians were in full agreement on these questions (see, eg, *ACT Newsletter*, Apr. 2003, 2). Compromise is not even possible with other Christians — or, as some Religious Right leaders habitually refer to them, 'Christians' (note quote marks).

Rhetoric of theocracy

The rhetoric of theocracy is evident in all major ACL publications. For example, what do you understand by the term 'liberty'?

Liberty is not the right to do what you will, but what is right.

('What is ACL?', downloaded 2 Aug. 2003,)

And who will tell us what is 'right'? I'll leave that to your imagination. Here are a few other clues as to what sort of Australia the ACL wants to see:

It is indeed time for the church to be seen again in all areas of national life.

(Wallace - <http://www.sightmagazine.com.au/stories/Features/elections> 13.11.04.php)

It is time for grass-roots, Biblically-based Christians to take back this nation.

(Peter Stokes, Executive Officer, Salt Shakers, approvingly quoted in ACL 'Latest issues', downloaded 3 Aug. 2003, 6)

...[T]olerance does not mean removing the need for every individual to have a philosophical basis for personal values that will allow them to

safely judge the many competing ideas and world views with which a plural[ist] society abounds. A wise man once said that the mind, like the mouth, is designed to be kept open only long enough to close on something solid, but the politically correct mantra dominating our schools is likely to produce intellectual 'gawkers', never able to firm on a moral reference point.

(Wallace, ACL media release, 21 Jan. 2004)

This last quote is particularly disturbing, as Wallace seems to prefer a situation in which school students regard open-mindedness as something to be avoided! A few months later he quoted figures from an ANU Survey of Social Attitudes which indicated that most Australians in the 18-49 age group believed that a same-sex couple with a child constituted a 'family'. Wallace's interpretation of this?

Presumably this ... is a direct result of the way this lifestyle is presented in our schools. The lesson we must learn is that we have to address the values our children are taught at school. (Newsletter, May 2004, 1)

It's hard to know whether to be more concerned about Wallace's logic or his conclusion.

Confronting 'Evil'

Look out, evil — the church has awakened! (Newsletter, June 2004, 2)

Theocratic movements often have a strong dualistic ('Manichaeic') inclination ie, a tendency to view personalities and events in terms of 'good vs. evil', and this observation certainly applies to the ACL. Thus, Australian policy-makers are afflicted with '*spiritual blindness*' and are '*lost and unaware*' (*Newsletter*, Jul. 2003, 3). Australian society as a whole is '*sick, confused and rudderless*' (*New Life*, 10 Jun. 2004).

ACL's (and God's) adversaries are legion and are terrifyingly powerful. Wallace claims not to believe in conspiracy theories, but certainly does

an excellent impression of such a believer:

At the national level we have seen a real assault on Christian values through the exercise of disproportionate political power by aggressive minorities. Many of these are driven by the profit provided in the new markets that breaching community norms on morals always creates ... Still others are ideologically driven by people whose agendas cannot be achieved unless they hold that disproportionate political power so evident in groups like the homosexual community. Their campaigns are subtle, inevitably distract the public by the skilful use of language and by avoiding the real issue through demonisation of opponents ... Unfortunately a largely sympathetic or at worst actively compliant press makes individual issues very difficult to win.

(Newsletter, Jan. 2004, 1)

'Demonisation' is an unfortunate word for Wallace to use, as he consistently pictures his own opponents as destructive and devious:

[Same-sex] marriage was the jewel in the crown that, once achieved, [laid] open to waste all other vestiges of our Christian tradition and heritage.

(Newsletter, Aug. 2004, 2)

[We must ensure that] *our national values are not hijacked by this determined and insidious campaign [for same-sex marriage].*

(ACL email to supporters, 23 Aug. 2004)

And Wallace's view of recent history also smacks of paranoia:

'Until the '60s the influence of the Judaeo-Christian ethic was quite strong, and that was very constraining for people with counter-Christian agendas like the homosexual lobby, the sex industry, the marijuana lobby. They couldn't really get anywhere until they neutralised that influence.' As a result, Christians have been 'blasted and denigrated to the point where they are reluctant to

stick their head above the parapet ... As a soldier, I know that you have to take the high ground. And the high ground is government.'

(Elizabeth Feizkhan 'Christian Soldiers', *Time Asia*, 29 Nov. 2004)

A priestly order?

To return to our definition of 'theocracy', God's laws are 'usually administered by a priestly order as his ministers and agents'. The word 'usually' indicates some flexibility in the definition, but as far as the ACL is concerned I don't think we're going to need much leeway.

Like the Christian Democratic Party in NSW (Rev Fred Nile MP, Rev Gordon Moyes MP) and the Family First Party in SA (Rev Andrew Evans MP), ACL is built around Christian pastors and their flocks. There is an assumption in most of the group's literature that its adherents are regular churchgoers; its organisational base seems to consist of individual Christians and some church-centred 'sub-branches'; and its growth strategy revolves around volunteer 'ACL church representatives'.

After Wallace, the most significant figure in the history of the ACC/ACL has been Pastor Carolyn Cormack, a Pentecostalist from Queensland. Prior to Wallace's arrival in the job, the group was headed by Pastor Peter Earle, also of Queensland (via the US). Ministers of various descriptions have either led or been prominent in other state branches e.g. Pastor Roger Williamson in Victoria and Rev Dr Lloyd Kent in the NT. I tried to add up all the pastors claimed as active ACC/ACL supporters in the group's literature, but I lost count at 33 with a long way to go. Wallace himself is (or was) a deacon at Hughes Baptist Church, Canberra, which means that he has some sort of experience in a church hierarchy.

An Australia governed on ACL lines might not be run by a priestly order *per se*, but by something uncomfortably close to it. I'll return to this matter shortly.

The company he chooses

Where might Wallace and the ACL fit into the ranks of modern Christian theocrats? Are they 'dominionists' ie, advocates of 'dominion theology', believing that Christians are called to transform society in an essentially and recognisably 'Christian' fashion? Are they perhaps 'Reconstructionists', aiming at the eventual restructuring of society in accordance with directions contained in the Bible, especially the first five books of the Old Testament? — for some background, see <http://www.unbelief.org/articles/theocracy.html>

Wallace strikes me as having much in common with the old Moral Re-Armament (MRA) movement that flourished in the 1930s and '40s. He has a kind of earnest naivety reminiscent of moral crusaders like Britain's Mary Whitehouse (d. 2001), an MRA stalwart, rather than more contemporary American dominionist hucksters. Nonetheless, Wallace cannot help but be affected by the company he keeps and his companions are often heavily influenced by dominion theology and related ideas.

Frederick Clarkson (*Eternal Hostility*, 1997) notes that:

A key, if not exclusively Reconstructionist, doctrine uniting many evangelicals is the 'dominion mandate', also called the 'cultural mandate'. This concept derives from the Book of Genesis and God's direction to 'subdue' the earth and exercise 'dominion' over it. (100)

From its very beginnings, the ACC/ACL looked and talked exactly like a dominionist outfit: some of ACC's early journals were actually entitled *Mandate*. Wallace first appeared publicly on a major Religious Right platform in 1999 (*Salt Shakers Newsletter*, Nov. 1999, 3ff) when he addressed a meeting of the National Alliance of Christian Leaders (NACL), an umbrella group which strongly promotes dominion-style thinking — <http://www.unbelief.org/fundies/nacl.html>. Wallace also has researchers and assistants who subscribe to some of these theories eg,

David Yates, formerly of the 'Centre for Worldview Studies'.

As recently as January 2005, Wallace was scheduled to appear with a list of dominionist and creationist speakers at a 'Worldview Training' conference at Toowoomba. The guest of honour was slated to be David Noebel of Summit Ministries in Colorado. Noebel, a former John Birch Society member, is a minor-leaguer in the American Religious Right but very strong on the importance of a 'Christian worldview' ie, a dominionist ideology (see Jean Hardisty [1999] *Mobilising Resentment*, 107-8). There is no doubt that Wallace has internalised many of these ideas and is now what is often called an 'operational dominionist' ie, even if he hasn't formally subscribed to the theory his actions are nevertheless predicated on it and almost entirely consistent with it.

Conclusion

Whether he wants to use the term or not, Jim Wallace clearly has a theocratic vision for Australia. An ACL-approved government would recognise God as the 'King' of this country; biblical commands including, I suggest, large chunks of Mosaic law, would come to dominate our statute books; and Parliament would be invaded by conservative evangelical pastors and their allies. Although most of these MPs would probably be lay people, it would be difficult to imagine them defying church instructions on basic issues.

Is any such scenario likely to develop soon? I very much doubt it, but if you hear people like Jim Wallace or Fred Nile denying that they want to see a theocracy in Australia, take it with a grain of salt.

But if early one morning they deny it thrice, head for the hills.



Welcome to Science

In April, I was asked to give a short speech to a group of local students who participated in a science fair. I wasn't sure what to say to them, until I saw a newscast the night before the fair. The story was some typically inaccurate fluff piece giving antiscience boneheads "equal time" with science, as if any ridiculous theory should have equal time against the truth. I sat down with a pad of paper and a pencil and scribbled down this speech. I gave it almost exactly as I wrote it.

I know a place where the Sun never sets. It's a mountain, and it's on the Moon. It sticks up so high that even as the Moon spins, it's in perpetual daylight. Radiation from the Sun pours down on there day and night, 24 hours a day — well, the Moon's day is actually about 4 weeks long, so the sunlight pours down there 708 hours a day.

I know a place where the Sun never shines. It's at the bottom of the ocean. A crack in the crust there exudes nasty chemicals and heats the water to the boiling point. This would kill a human instantly, but there are creatures there, bacteria, that thrive. They eat the sulphur from the vent, and excrete sulphuric acid.

I know a place where the temperature is 15 million degrees, and the pressure would crush you to a microscopic dot. That place is the core of the Sun.

I know a place where the magnetic fields would rip you apart, atom by atom: the surface of a neutron star, a magnetar.

I know a place where life began billions of years ago. That place is here, the Earth.

I know these places because I'm a scientist.

Science is a way of finding things out. It's a way of testing what's real. It's what Richard Feynman called "A way of not fooling ourselves."

No astrologer ever predicted the existence of Uranus, Neptune, or Pluto. No modern astrologer had a clue about Sedna, a ball of ice half the size of Pluto that orbits even farther out. No astrologer predicted the more than 150 planets now known to orbit other suns.

But scientists did.

No psychic, despite their claims, has ever helped the police solve a crime. But forensic scientists have, all the time.

It wasn't someone who practices homeopathy who found a cure for smallpox, or polio. Scientists did, medical scientists.

No creationist ever cracked the genetic code. Chemists did. Molecular biologists did.

They used physics. They used math. They used chemistry, biology, astronomy, engineering.

They used science.

These are all the things you discovered doing your projects. All the things that brought you here today.

Computers? Cell phones? Rockets to Saturn, probes to the ocean floor, PSP, gamecubes, gameboys, X-boxes?

All by scientists.

Those places I talked about before, you can get to know them too. You can experience the wonder of seeing them for the first time, the thrill of discovery, the incredible, visceral feeling of doing something no one has ever done before, seen things no one has seen before, know something no one else has ever known.

No crystal balls, no tarot cards, no horoscopes. Just you, your brain, and your ability to think.

Welcome to science. You're gonna like it here.

Phil Plait
The Bad Astronomer

Psychic or Just Sick?

Is there any harm in psychic acts?



Peter Booth has just completed a Bachelor of Arts majoring in Journalism at Griffith University. He has also studied theatre and magic which sparked an interest in the topic.

James Van Praagh says he can talk with the dead. He says he can see into the future. He may even use his powers to search for an answer to the mysterious disappearance of Sunshine Coast teenager Daniel Morcombe.

Van Praagh is the latest American television psychic. His television show, *Beyond*, airs every weekday afternoon on the Nine Network, and his recent tour of Australia sold out shows across the country. His show at the Brisbane Convention Center netted almost a quarter of a million dollars in ticket sales alone.

His three hour performances consisted of 40 minutes of his life story, 20 minutes of questions from the audience, 30 minutes of guided meditation, and an hour of the supposed psychic readings that have made Van Praagh famous. Almost all audience members who commented on the shows gave a belatedly positive review, thoroughly convinced Van Praagh had made contact with the world of the spirits.

However some skeptics were not impressed. Mark Mayer demonstrates unexplainable paranormal abilities on a daily basis. But Mayer is not psychic ...he's an entertainer, an illusionist, who as part of his show, *Talking With the Dead, Or Lying To the Living?*, at Melbourne's Trade Center, demonstrates the

tricks of the trade he says psychics like James Van Praagh can use to deceive vulnerable people. Mayer attended one of Van Praagh's shows and was disgusted by what he saw. Mayer says:

It made my stomach turn to have to watch it. It was dreadful. The subject matter was just trivialised and thrown away. The real actual pain and grief of the people who were there to get some sought of connection, looking for hope and desperately trying to have closure on their pain, was just washed over in light entertainment.

Mr Mayer describes what Van Praagh does as "emotional rape".

It was like watching a woman being physically attacked and not being able to do anything about it.

Mayer says there is a general misconception that the psychic industry does no harm.

Actually it does a lot of harm, he says.

He describes a woman in the audience at Van Praagh's Melbourne show. In her early 20s, she stood up during the psychic readings and asked Van Praagh if he could contact her daughter, who had died at a young age in a car crash. Van Praagh proceeded to apparently communicate with the deceased young

girl, who he said was standing next to her. The young woman said she was the driver of the car, and asked if her daughter forgave her. Van Praagh responded, "Oranges, take oranges to her grave, she wants oranges." Tears were streaming down the woman's face. Later Van Praagh told the woman her daughter wanted her to know there was nothing to forgive.

Mayer says this incident was a typical example of Van Praagh desecrating someone's memories of their deceased loved ones:

What pain must this woman be in? She should be seeing trained emotional councillors... not someone who is pretending to see her dead daughter. Now she can go away and think, 'Well that was amazing, why do I want to stop talking to my daughter now? I'll keep going to psychics forever, for the next 50 or 60 years and spend thousands and thousands of dollars.' He's screwed over their memories and their love."

Mayer attributes the apparent psychic gift James Van Praagh has to a psychological technique known as "cold reading": a combination of making generalized statements, posing questions as statements, and feeding back information he has already been told.

Because we are more the same than we are different, things that seem quite specific and like they only apply to either me or to you, actually, in general reality, apply to a majority of people..

They ask a leading question based on common life experiences to extract specific information, and combine this with things like popular first names, common causes of death or illnesses, and other statistical probabilities. It makes the people feel that the reading is really personal and just for them.

Audience members for James Van Praagh's television tapings are required to sign contracts prohibiting them from speaking to the media about what they saw. However audi-

ence members for his Brisbane Convention Center show were not required to sign anything, and Shar Von Christyanson, who paid \$110 for her ticket, was quick to express her disappointment:

Most of the people are here today as a result of them having some severe emotional trauma or loss of loved ones and they're looking for something. I think he's exploiting that. After the show they were selling blue stars for an 'intimate meeting' for 500 people.

They paid 35 dollars a head and basically what they get for their money is they can shake his hand or he can sign a book for them. I met Lady Diana, I've met Michael Jackson, I've met Elton John, I've met Bill Clinton. Lots of significant people. Not one of them charged to shake their hand. I just find that ridiculous. I think that it's idolising another human being. They're so desperate to touch this man.

So why the need for an audience contract? Mark Mayer suggests the deceptive editing of the shows may have something to do with it:

They take up to six hours of taping to produce 11 minutes of air time. That 11 minutes of air time is then edited creatively to give the best impression. On top of that, you're allowed to have questionnaires before the audience goes in. You're allowed to have microphones in the audience before the show starts for an hour while they're all chatting amongst themselves. And just to help pad it out, if you do get stuck, you're allowed to have actors in the audience.

Mayer says people generally do not show the same level of skepticism towards psychic television shows as they do for other media:

They're so critical about things, like that band is made up and this is not real reality TV, and as soon as this comes on their logic goes out the window. That's a normal emotional response across the board when you are feeling in pain.

Other views

Victor Zammit is a Sydney-based lawyer and author of the book, *A Lawyer Presents the Case for the Afterlife*. Zammit is a staunch defender of Van Praagh's psychic claims. Zammit says:

The closed-minded skeptics accuse him of fraud, but they can not prove it. It's closed minded skepticism.

Zammit says a visit to a psychic where he apparently made contact with his deceased Father, Mother and Grandmother changed his views on the subject:

I didn't get along with my father. After half an hour of asking lots and lots of questions to confirm some certain incidents from when he was alive with me, and nobody on earth could no about those, they were 100 percent correct. I said 'OK, what do you want?' And he said, 'I came for forgiveness. I cannot progress in the world that I'm in unless you forgive me for being such a lousy father'. I got that and for me the experiential is far more important than even science.

James Van Praagh was unavailable to comment on his show, but his manager and producer of *Beyond*, John King, invited any skeptic to come to their shows and still not believe.

I'm a skeptic myself, King said If you see one or two of these it's pretty hard to deny that there's something there, even for the biggest cynic or the biggest skeptic.

When asked if James Van Praagh's claims of psychic powers are fake, King responds: *I produce those shows, I put them together, so I know that those shows are real, I know that there's nothing rigged.*

Missing people

King says that James Van Praagh has previously worked with police departments and the American government, and revealed that Van Praagh may assist authorities investigating the disappearance of Daniel Morcombe in December last year.

I actually received a newspaper article about that today... it's quite possible that he (Van Praagh) may be interested in doing something with that.

This is a prospect that Mark Mayer finds particularly disturbing.

The idea of psychic detectives is a myth, he says. If you look up any police records for anywhere, there's not been a single case of any psychic solving or helping any crime ever. Scotland Yard goes on record saying they don't use it at all and it has done nothing. The LAPD goes on record saying they actually did tests to see how accurate they were and they will not use them. The FBI don't have any files on it whatsoever, either for or against.

As soon as a high profile child goes missing they (psychics) prey on it because its great advertising, and it's absolutely disgusting.

Executive Officer of the Australian Skeptics, Barry Williams compares claiming to be able to find missing children to the actions of hoax e-mailer David Charles Brine, who was recently arrested for claiming he knew the whereabouts of Daniel Morcombe, and demanding money for his return. Williams says:

If you give police a lead, they have to follow it up. They (psychic detectives) probably convince themselves they're helping the police. It's cruel. I don't give a damn if you are self-deluded in those cases. Your self-delusion is causing pain to somebody else."

Claims by psychics to know the whereabouts of their son have plagued Mr and Mrs Morcombe before.

I've received a few letters from psychics, some of them have been very distressing, Denise Morcombe told Australian Story.

They say that Daniel may be in a local barn in the area close by, or in a country town. I've had one letter saying that Daniel's head's been

shaved and he hasn't got many days left. Bruce tells me to put them aside and don't look at them, but they do go through my mind, what if it is true?

No regulation

The psychic industry is not bound by the same regulations as other consumer industries. Mark Mayer believes tougher restrictions should be introduced to monitor the industry.

If you want to be a psychic you need no qualifications, you need no history, you don't need to have any police checks, and you don't need to prove or substantiate any of your claims, he says.

If people are going to go to psychics, and they want to, I'm not saying they're not allowed to or they shouldn't. If you want to go, you just need to go with the full disclosure that this is entertainment, it's made up and it's fun, and if that's the case then no problem.

Celebrity psychic John Edward presents the following disclaimer during the credits of his television show *Crossing Over*:

The materials and opinions presented in this program by John Edward and other third parties, including statements, predictions, documents, photos and video footage, come solely from their respective third party sources and do not necessarily reflect the views or opinions of the producer, are not meant or intended to be a form of advice, instruction, suggestion, counsel or factual statement in any way whatsoever and are intended as entertainment.

Mark Mayer lodged a complaint with Consumer Affairs in Victoria regarding a lack of such a disclaimer during John Edward's February tour of Australia. He has so far been unsuccessful in his efforts to get authorities to closer investigate psychic claims.

Barry Williams said the Australian Skeptics once brought a case to the Department of Fair Trading against a supposed psychic tel-

ephone hotline, run by famous Australian psychic [the late] Athena Star Woman.

We had received evidence by planting a stooge in there that people could get a job there with no tests to see if they were psychic, and they were given a script to read and told to not to depart from it, Williams says.

They were also told to keep people on the phone as long as they could, and the average was 18 minutes, at five dollars a minute.

They (the Department of Fair Trading) refused to do anything about it. They said 'You're getting into the area of people's beliefs'. I said 'Regardless of whether they believe it or not, the fact is what they're doing is fraud.' But they wouldn't touch it.

Mr Williams says despite any evidence that Van Praagh can not really make contact with the afterlife, he and other psychics will continue to prosper.

The only thing that will bring it down is for the entire humanity to suddenly become critical, rational thinkers, he says.

They're selling a simple message. They're selling hope and the rational world is selling you the hard bloody reality.

We've definitely got the harder sell.

Note

This piece was originally written by Peter Booth as an investigative report for a university course entitled "Feature Writing," and later adapted as an audio story for a radio course. The radio version of the story was nominated by the course convenor for an Ozzie award for junior journalism.



Chemical Warfare:

Dirty Doings in the Pharmacy

Where can one turn for good advice?

One pill makes you larger and one pill makes you small

And the ones your mother gives you

Don't do anything at all.

(Lewis Carroll Alice In Wonderland)

In March 2005 a poll was undertaken to determine the trust we put in a wide selection of professions. When the results were published it showed that used car salesmen were rated at 10% and nurses at over 90%. Pharmacists did well at 86%. Your local pharmacist, who seems to spend most of the time staying tucked away amongst the medicine shelves in the back rooms, wading through a steady stream of prescriptions, is a highly educated, both medical and science trained professional, up to date with research. That is the person you really want to talk to when you are ill and need to take prescription medication. After being diagnosed with cancer in 2003, my own experiences with pharmacists are that they are always knowledgeable, friendly and available. We willingly believe what they say and understandably so, but do they really deserve this high level of trust?

It is war

There is a war going on in our shopping centres. It's chemical warfare of non-prescription drugs. For the past years there has been a boom in shops selling 'natural' — herbs, pills, potions and a wide range of health products and services. Even in the face of overwhelming evidence that many of these products and services fail to perform, are sometimes based on pseudoscientific gibberish, and may even be dangerous, there is a continual queue of willing converts. "Natural = Safe" is the assumption and nothing you see on display seems to contradict this belief.

Numerous television documentaries and articles have been written and produced by reputable researchers about these products. They use words like 'pesticides', 'heavy metals', and 'herb substitution', and they state that some of these products cause thinning bones, diarrhoea, asthma, cirrhosis, hepatitis, irritable bowel syndrome and even death. These messages seem to fall on deaf ears. After all, there are shiny full-colour multi-page booklets bulging out of well-used carousels and squashed haphazardly between displays of this week's new batch of



Loretta Marron's biog is elsewhere in this issue. She will be a speaker at our National Convention at the Gold Coast, Aug 13-14.

products; they use dramatic words within emotive anecdotes as they show pictures that tell you how they 'may' improve your health. Lavish high-profile-advertising brand names sit proudly and professionally above the wall-to-wall regimented shelves of matching bottles, tubes and packets.

At the doorway is a tray of free magazines with this month's 'special' to lift your lagging sex life, lose or add weight, improve your memory, increase your energy, solve your hormonal problems. There is the inevitable page of magnetic or copper products that display smirking familiar faces claiming that they are there to help you become pain-free. It seems you don't need proof: there is always someone to reassure you that it worked for them. After all, it can't hurt you; why not give it a go; it's on special today for \$299 + GST; I'm sure you can stretch your pension cheque just that little bit further.

We can also help you boost your immune system, remove your toxins and tackle those unwanted parasites.

There is a pill or product there for everyone, and new ones seemingly arrive daily.

Signs of the times

A sign stands by the doorway;

The naturopath will be here at 2 pm today; Iridology available Wednesdays and Fridays; Yoga classes start again next week – ask at the counter for details.

As you walk into this part of the shop a Pandora's box opens before you, helping you take control of your own health. After all, 'science doesn't know everything.'

People are eager, even encouraged by medical rebates from desperate health funds with dwindling membership, to experiment with 'New Age' tools that can tell your past, present and future, can 'balance the harmony' within you and can 'channel the energy of the Universe' to heal you.

We can find your cancer in your eyes; we can tell you what cancer you've had and what you'll get.

At least that's what the iridologists say.

We can cure you of cancer with water that contains only 'vital energy' from shaking. It remembers the symptoms you have. No need for an operation — it reduces your chances of surviving by 50%.

At least that's what some homeopaths say.

If you have any type of illnesses or want to stay healthy we can sell you all you need for you to live forever — after all, change your lifestyle and cancer and disease will be not touch you or you will cured.

At least that's what the naturopaths say.

While people are leaving mainstream medicine in droves, they are not walking too far. Turn around and you are in the pharmacy.

It is the same shop. In the suburbs and country towns, there is an explosion in 'natural' products and services. The simple health foods shops of the past have metamorphosed into 'holistic' healing centres, which are attracting everyone from high-income, educated, professionals to a new generation of people with dread-locked hair, tattooed arms, backs and necks and multiple piercing in ears, tongues, nipples and noses. These New Age converts are tired of long waits in revolving door medical centres waiting for unfamiliar doctors for a short appointment, only to leave with a script for some manufactured chemical. Nothing natural there. It is not enough today to cure the body; the spirit must be cured as well; your harmony must be re-balanced and your 'ch'i' repaired, this takes time, and here there is no time.

Enter 'Big Pharma'

In 2003 Australians made 1.9 million visits to naturopaths and herbalists. 'Natural' had become a \$2 billion dollar industry and this did not go unnoticed by the pharmaceutical

giants. There were takeovers and mergers and it wasn't long before the leak in the drug money was plugged. The Mayne website proudly boasts that under their umbrella is, "Nature's Own™, Cenovis®, Golden Glow®, Bio-Organics™, Natural Nutrition™, and Vitelle®".

They also state that "Faulding® and Trademark brands are deeply entrenched in the history of the consumer products division and have been part of Faulding for more than 20 years." They also own the "Betadine® range of antiseptic products, which are widely used in hospitals and households for their broad-spectrum antibacterial and antiviral action".

The website also mentions their own pharmacies which include "Chemmart®, Terry White Chemists® and The Medicine Shoppe®". To add to that they own the MINFOS Management Information Systems whereby pharmacy managers can win prizes — all great strategies for gaining the loyalty of their pharmacists. On their site you can read about:

... the winner — [name deleted] Terry White Chemist, Smithfield — was drawn by Pharmacy Guild National President John Bronger.

To win the Toshiba laptop "Entrants were required to dispense a script to themselves in the Mayne stand at the conference." I hope they needed those pills.

According to the website they manufacture pills as well. Their site states;

Mayne Pharma has the infrastructure and expertise to meet the requirements of each of the major regulatory authorities and to promptly secure product approvals. Our global manufacturing infrastructure operates across over 245,000 square feet (23,000m²), producing more than 52 million ampoules and 40 million vials annually, in addition to the production of specialised modified release oral pharmaceuticals.

Mayne own or have owned hospitals, medical centres, pathology, di-

Chemical Warfare

agnostic imaging and more. They cover an entire column in the white pages. 'If you can't beat them, join them' — and why not? It's all legal and raises millions in profits for its shareholders and, for the Government, there is the overarching 10% on the prices going directly to the GST.

Bureaucratic run-around

One of our seniors' magazines recently advertised a health product that made claims that seemed to contradict human physiology. Searching the Internet, I found a reference to this product with the Food and Drug Administration (FDA) in the USA. I emailed the FDA and they responded with the details relating to this product. It had been banned in 1992. I attached this reply to an email to the magazine. They withdrew the advertisement.

I also attached this reply to an email to the ACCC. They sent me to Treasury (Recalls). I phoned Recalls, located in Canberra, and they questioned why I was contacting them. It had nothing to do with Recalls, they said, and suggested I contact Fair Trading. I contacted Fair Trading and they wanted to know how much money I had lost. None, I said. Well why are you contacting us, they asked. Because the product doesn't work and I have the proof, I replied. Whether products work doesn't seem to be an issue — the product only has to be safe. They sent the file to their Safety division. A month later I received an email. Sorry, the product is safe, so nothing can be done about it. It seems placebo products are big business; proof of efficacy not required; **buyer beware**.

Fighting back

Now when I find an advertisement for a product that doesn't work, I don't contact the government any more: I contact the magazines and newspapers; I attach the research, web links and articles — let them read it for themselves. It's all I can do and sometimes it works.

Like most people with a major

illness, I wanted the best possible advice and information. When I was first diagnosed I went to the Internet and started my research. I bought folders and filed reports; I highlighted cure rates, medications and clinical trials. Now I find that these very web sites are funded by drug companies: Arthritis Australia and Impotence Australia are sponsored by Pfizer — see for yourself. Look at the computer screens on your GP's table, watch the pretty pictures roll and flash — new drugs for new conditions. The software is provided free from drug companies.

A betrayal of trust

During 2004, the National Seniors Association, with a membership of 300,000 seniors, conducted a survey to find out what interested their readers. Health was their number one concern. But whom do you trust for the best independent advice?

I trust the staff at my local pharmacy. They have spent the time with me when I needed them most. Their advice was always accurate; their sympathy sincere; their concern genuine. Like the captain of a ship, they are the face of the pharmacy where they work, but like that same captain, I hold them responsible for the goods and services they sell. An item that sits on the shelf in a pharmacy does so with the endorsement of each and every pharmacist that works there. I therefore feel that I should trust that what I buy off the shelves in that pharmacy works.

As a cancer survivor, my health is constantly at risk, and each and every day I can't forget this. I need that trust. However, when I walk through my pharmacy I feel betrayed. I know

that some of their health products don't work and I have quite a few testimonials collected from concerned pharmacists and my own research to prove it. No other type of business can do that, so why can they?

I said to one of the pharmacists once, 'Do you know that some of the products you sell don't work?' He responded, 'Some people say they work for them.'

'Placebo is a wonderful thing', I replied, and he said 'Yes'.

Alice in Wonderland is said to be an intrepid pharmaceutical explorer and a drug culture heroine. She liked the genuine article — no placebo for her.

I think Lewis Carroll would agree with a change to Alice's story to reflect today's pharmacies:

Hormone pills makes you larger and laxette pills makes you small

But other pills your chemist sells

Don't do anything at all.

Sorry Alice, it might be the 21st century, but your mother's 'snake oil' is still out there.

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Lewis Carroll / Alice in the popular culture www.lewiscarroll.org/pop.html



**National Convention
Gold Coast
August 13-14**

A Skeptic's Music Jamboree

What kinds of music do Skeptics listen to? Since we are an educated lot, probably the classics: Mozart, Bach, and Midnight Oil. But is there music specifically for us Skeptics? For example — dare we hope — a pop song poking fun at creationism?

This Skeptical Hit Parade only has five entries, but there have to be many more songs that are suitable. If you have a favourite tune with skeptical lyrics, why not drop me an email? If the constellations tilt just so, there might yet be a follow up to this article.

That said, let us put on our Molly Meldrum hats, and count down!

5 *You Don't Know* – Cyndi Lauper

Are we ready to forgive Cyndi for portraying a psychic in *Vibes*? Rather than trying to keep up in the rat race of fame, Cyndi took to making albums which, although not huge commercial successes, have a level of maturity perhaps missing from her earlier efforts. The song *You Don't Know* from her *Sisters of Avalon* album (1996) is a case in point. The song is not kind on those who trade their minds for the comfort of belonging to a group.

As you follow blindly along ...

To find something to swear to ...

Till you don't know what's right from wrong

You just need to belong somehow.



Michael Lucht

4 *Shades Of Grey* – Billy Joel

His parents having fled from the Nazis, Billy knows a thing or two about the dangers of fanaticism. His song from his “River of Dreams” album (1998) affirms both reason and doubt as important antidotes.

Now with the wisdom of years,

I try to reason things out

And the only people I fear

are those who never have doubts

3 *Victim/Volunteer* – Christine Lavin

Christine is a folk singer, with a taste for the whimsical. And she is absolutely mad – in the nicest possible way. How else to explain the song she penned which included a URL in the lyrics? For the astronomically-minded, she deserves special mention, for she wrote a number of melodies about the solar system, such as *Venus Kissed the Moon*, about the grazing occultation between Moon and Venus. (At least I think that is what she meant.) Another of her songs, *Planet X*, is about Pluto (and this is the song which included the URL). Her song *Victim/Volunteer* from her *Attainable Love* album (1990) lists new-age practitioners among the groups of people who are rather bad at identifying the true source of their problems:

He has invested his money in well bred astrologers

Healers, Psychic Seers

And now he blames every tilted constellation

Or every negative vibration

He's not a victim of UFO infestation

He's a volunteer

2 *Heyooh Guru* – Udo Lindenberg

Udo Lindenberg is a one-man rock'n'roll institution in Germany but he is little known internationally. Perhaps he should have penned

a song about Luftballons? In terms of longevity, think of him as Paul McCartney wearing a hat. In terms of his politics, think of him as Peter Garrett with hair. His song *Heyooh Guru* from his *Odyssey* album (1983) is just a tad cynical about gurus:

Durch die Wüste zieht der Treck

Der Guru fliegt schon mal vorweg

(er fliegt vorweg im Privatjet)

Take that, everyone who has ever claimed that European Continental languages are useless in Australia! This translates to:

Through the desert moves the trek,

The guru flies ahead

(he flies ahead in private jet)

1 *Monkey Business* – Nik Kershaw

In case you were not around at the time (or have repressed the memory), Nick was the quintessential pop star of the 80s. He shot to fame with *The Riddle* and *Wide Boy*, and burnt out faster than one can groan “Spice Girls”. However, Nik had real talent — for one thing, he wrote all his own material. Some of Nik's lesser-known works had themes far off the beaten track, such as *Don Quixote* and *Monkey Business*. The latter is the Number 1 in our Skeptics Hit Parade, a song that should be played on ghetto blasters (in tune with the 80's retro theme) outside every Answers in Genesis rally. Just make sure to wear running sneakers, unless you are keen to re-enact the conclusion to *John Safran versus God*.

Monkey business

Mankind, I got a theory that will blow your mind

Monkey business, you'll see

You got an ape in your family tree



Spooked Skeptic

Amazing apprehension of apparitions

Like an apparition from another age they came shuffling down the dusty streets by night, bearing torches and muttering a litany of tall tales like a Proclamation of the Faith. This was no mindless pack of zombies or medieval pilgrims, but a ghost tour outside Sydney.

Ghost tours offer a wonderfully subversive opportunity to teach adults something about local history. Every city has them, but each tour is unique to the person in charge. In this tour, the guide is none other than Liz Vincent, a well-regarded local historian. As promising as this seems, don't come expecting too much of the macabre moments of Picton's past. This was more of a support group for devotees of the supernatural, so if you believe in ghosts, or want to, this is the best place to be on a Friday and Saturday night.

Just because this is a very ghost-friendly tour does not make it bad. Anybody who is interested in psychology would find the tour fascinating. Just remember to pretend you see ghosts all around you while keeping an eye on everybody else... and keep your mouth shut about all the natural phenomena trotted out as evidence of the supernatural. This is the sort of tour that attracts people who only want to be told they are not deluded. From the beginning we were asked if there were any skeptics in the group. Ghosts, we were warned, love to pick on skeptics. Worse yet, sometimes the group can turn on skeptics "and it isn't pretty".

(Considering how strongly the tour guide feels about ghosts, I had visions that she'd be the one leading the lynching.) As a potential wind-chime, and an actual coward, I kept my mouth shut.

As preparation, people were told to expect ghosts in any smell, sight or sound. As people got to hear spooky stories and even take photos of ghosts (that look exactly like dust particles caught in the flash), they overcame any fear of ridicule and told of their own experiences. Inevitably, people got jumpy, and before long ghosts were everywhere. In this regard I highly recommend the tour because if you want a ghostly experience, this is the way to get it. Mutual support and a suspension of disbelief will keep people coming back for more. As silly as it sounds, it's still a fun night out, being scared or watching others make fools of themselves, and everybody needs a place to feel welcome.

Go to any fast food chain and the postgraduate philosophy student behind the till will probably tell you that there are three main ways of looking at the world. Naturalism supposes that everything is made up of matter and, as mysterious as the world appears at times, everything has a natural explanation (whether we understand it or not). On the other extreme is spiritualism which supposes that the physical world is an illusion. If we exist at all, it is as immortal spiritual entities. In between is dualism and this is where the ghost tour treads. Dualism sup-



Philip Peters, an animated animator, was recently elected Secretary of NSW Skeptics. After this exploit he is also our Inspectre General.

poses that there is both a material and spiritual reality. We live in a world governed by science, but sometimes we have intruders belonging to a different kind of reality.

There is nothing stupid about dualism or a belief in ghosts. This tour was not an example of the mad leading the gullible. These were ordinary adults who overwhelmingly chose a dualistic worldview and were seeking any confirmation of their beliefs with a

proportionate antipathy towards naturalistic explanations. Evidence tends towards naturalism because it presupposes that the world follows certain rules. You can prove something exists by getting others to confirm it independently. The problem with the supernatural is that there are no hard and fast laws. You need a consistent universe for proof to always be valid. The people who believe in the supernatural shouldn't need evidence, and yet there we were at the start of the ghost tour being warned that anything could be proof of the supernatural. Examples to watch out for were the black cat that is strangely not seen by everybody (explain that skeptics!), but usually appears for the tour that finishes in a café. There was also the inexplicable smells, such as cooked meat in a paddock, which is a fair call. Next time I'm in an elevator and a strange smell manifests, I'm going to look at the trapped occupants and nod sagely... "ghosts".

For myself, the highlight of the tour was spending five minutes in the dark, in silence, under a hill in the middle of the night. People were beside themselves (duality?). In their childhood, these people must have missed out on some very basic science. It is not unnatural for it to be



Ghostly figures (or dust) hover above guests

cold underground at night. A breeze should make it even colder — they do that. If it were a ghost, then the ghost did everything a breeze should do. Given time, our eyes can adjust to the dark. Here we had a crowd of adults on the brink of panicking at simple variations in light at the end of the tunnel. Don't they teach 'diffusion' in primary schools any more?

On a more serious note, I was a bit worried about people getting too scared and panicking, as the tour seemed ill equipped to cope if anything went wrong. The tunnel was so dry that one person on the tour had his disposable contact lenses shrivel up and was as blind as a bat until he could get hold of some saline. Neither the tour guide, nor the café at our destination could offer any more than a Band-Aid. Can anybody spell 'duty of care'?

'No amount of evidence can convince a skeptic' is something we have all heard, and it is good that this ghost tour at least attempts to seek the evidence. We were all encouraged to take photos, and were "morally obligated" to share the photo's with the tour guide if they showed anything enigmatic. Clearly people believed this because at the conclusion of the tour we were treated to whole albums of bad photographs.

Reflections, glare, light, shadows... nothing was too amateurish, but of course these snapshots take on a whole new meaning when viewed by people looking for confirmation about what they feel to be true. Without any critical evaluation to balance its value, this sort of evidence only served to reinforce preconceived ideas, which of course is the whole point. People pay money to walk the cold dusty streets, enduring the abuse

from hoons in utes and belligerent drunken yahoos to get a taste of the supernatural. Things have taken a turn for the worse lately and the tour has postponed the tunnel visits until they can get better security.

One of the spookiest tales told was of the ghost road. One of the roads leading into Picton runs along a precipitous ridge called, mysteriously, Razorback Ridge. (People had more imagination back then.) The course of the road has changed over the years, and sometimes people drive where the road used to be, only to find themselves sailing off into history. It's all very sad but it is also kind of sad that this is considered proof that ghosts kill complacent locals.

On the way home though, I had the best thrill of the night. I happened to be in the car driven by the one guy whose contacts failed him in the tunnel. If something had happened, the tour guide would have been right. Ghosts *do* pick on skeptics.

The web site for Liz Vincent Ghost Tours is: www.lizvincenttours.com.au/. Don't go alone!



Homeopathy Exposed — Again!

**No matter how many times
it is knocked down, it still
bounces back —
unfortunately**

Australian Skeptics has long regarded homeopathy as little more than outdated quackery. (A visit to www.homeowatch.org will give a comprehensive explanation of this so-called medicine.)

In 2002, Skeptic, Cheryl Freeman exposed the fraudulent sale of fake ‘vaccines’ for Meningococcal disease, Hepatitis B and Influenza. These homeopathic vaccines were available via the internet or phone orders from Gentle Heal Pty Ltd, of Seven Hills, NSW and Newton’s Pharmacy, York St, Sydney. Cheryl’s actions led to a ban on the vaccines and Gentle Heal went on to win the 2002 Bend Spoon Award. (see *the Skeptic* 22:3 and :4) Have things changed in the last three years?

The Sydney launch of ‘World Homeopathy Awareness Week’, April 10-16, took place at Circular Quay. Having an interest in this topic, I attended to see what was going on — four information booths, some live music, a few people milling around and not much else. I was handed a flyer about the wonders of homeopathy which said in part:

Did you know? That homeopathy can achieve ‘impossible cures’? Eg: a boy cured from autism ... homeopathy can work faster than antibiotics ... homeopathy can treat viruses like measles, flu and herpes?

The only real information it contained was that The Australian Homeopathic Association Inc (AHA) planned to have a booth at the forthcoming Parents, Babies & Childrens

Expo at Homebush Olympic Park. If these people think that homeopathy can cure autism, which is absurd, what would they be telling parents at this Expo?

I had my suspicions, which were confirmed later that week when Peter Bowditch and I attended the Expo. At the AHA booth, we approached an attendant:

Can you use homeopathy to vaccinate babies against polio, mumps and other diseases?

Oh indeed yes! Homeopathy can vaccinate your baby against any disease and it’s completely safe.

My fears confirmed, we moved to another attendant:

We’ve just been told that you can use homeopathy to vaccinate babies. I never knew this.

Her reply was instructive:

Well, we have to be careful what we say, you know ... but yes, homeopathy is a far better way to vaccinate babies and is much safer than what the government is doing. Those vaccinations actually cause diseases!

More conversation with the pair reinforced this view with further warnings about a global conspiracy by the pharmaceutical companies against alternative medicine.

Letting the cat out of the bag

Representatives of The Australian Homeopathic Association Inc have publicly stated, at a Parents, Babies & Childrens Expo, that homeopathic



Richard Saunders, an independent video producer and designer of the Great Skeptic CDs, is the Immediate Past President of NSW Skeptics

vaccines are a valid way to immunise babies, and that parents should not use conventional vaccines. This is like saying that parents should take down their pool fence and replace it with a line on the ground drawn with chalk. With the hall full with thousands of visitors, milling around over the three days of the Expo, we can only wonder how many parents were duped by this disgraceful advise from people posing as health care experts.

Homeopaths were not the only exhibitors to give us cause for concern. Entering the Expo, we were confronted with the alarming sight of babies and toddlers undergoing chiropractic adjustments. This stand also had brochures recommending against vaccinations, pointing out a supposed link to cot-death. When quizzed, one of the chiropractors said she would recommend homeopathic vaccinations over conventional ones.

During our visit, we resisted the temptation to take the homeopaths and chiropractors to task as this would not have proofed productive on the day. It was more important for us to see first-hand what was going on and give these people enough rope. However we made sure that representatives of valid medical institutions, also exhibiting at the Expo, were made aware of the actions of their fellow exhibitors. The reps from Children's Hospital at Westmead were particularly horrified. Also, on the way out, Peter and I made our concerns known to the organizers of the Expo who seemed to be disturbed at our findings.

I must say that the Expo itself, apart from the quackery, was a truly



Homeopathy Awareness Week launch at Circular Quay

wonderful affair and I would recommend it to any parent. There were certainly enough reps from valid medical institutions and other companies to make it worth while.

I have no reason to suppose that the representatives of the Homeopathic Association, both of whom would probably regard themselves as qualified homeopaths, do not believe in the advice they were giving. How

release, which resulted in a number of interviews on ABC Radio stations, and a warning to parents. So far AHA has made no comment on the matter. Readers are invited to read our press release and other information relating to this report by visiting Australian Skeptics web site. www.skeptics.com.au



Table showing the volume of water required to make up various homeopathic dilutions

One cc (1/4 teaspoon) in	Cubic water container of side dimension-	homeopathic dilution
1000 cc	10 cm.	3X
1,000,000 cc	1 metre	3C
10 ¹² cc	100 metres	6C
10 ¹⁸ cc	10 kilometres	9C
10 ²⁴ cc	1,000 kilometres	12C
10 ³⁰ cc	100,000 Km.	15C

Note-

The more common homeopathic dilution of 30C would require a cubic vessel with a side of 100 light years, one light year being equivalent to 10¹³ Kilometres.

Our thanks to Skeptic David Hellstrom for this chart

Red Light to Greenhouse

Journalist challenges the consensus

My colleagues tell me that if we were all playing parts in one of those Hollywood blockbuster disaster films my character would come to a sticky end.

In the opening scenes of this supposed Hollywood film I would be seen lecturing my colleagues about how most of what they have read and heard about the enhanced Greenhouse effect and the warming up of the earth, is nonsense. Then in the succeeding scenes, after some catastrophic failure in the ecosystem due to the warming of the earth — perhaps a wholesale, overnight melting of the polar ice caps — the seas suddenly rise to flood out all of Sydney CBD. The only way out of our Sydney office building is to take a paddle craft fortuitously washed to one of the sea level windows from the recreational lake in nearby Darling Harbour.

We paddle away to save the girl of the film but then I am taken by a giant crocodile, which the Hollywood script writers have had mutated by pollution from the Uranium mines in the Northern Territory and moved all the way to flood-bound Sydney. At that last moment on screen, before I vanish into the jaws of this beast, my face shows that I realised my

terrible mistake in doubting the greenhouse effect.

Blockbuster films aside the office lobby remains dry and I have yet to see any giant crocodiles in Sydney CBD, but my sin in doubting the enhanced Greenhouse effect is a terrible one indeed. So frequently does the media mention the warming of the earth and how this and that effect is due to the warming, and how scientists are collectively warning the government about its failure to adopt the Kyoto Protocol, that to openly doubt the Enhanced Greenhouse effect is to be labelled a “crank”, possibly funded by evil oil companies, by the Sainly greenhouse people. Well I wish I was backed by evil oil and coal companies, then I could pay my Visa bills, but call me a crank.

Of late the cranks have been scoring a few points.

Whether you are prepared to go with the crowd or not, a lot of the media reporting on the Greenhouse effect is unquestionably doubtful. One article in the *Good Weekend* magazine published earlier this year talked confidently of a six degree rise in the earth's average temperatures in a century. Where did that figure come from? In fact the article was

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quoting the maximum of a very wide range forecast by International Panel on Climate Change. At one point the very distinguished scientists of the IPCC forecast that in a century the Earth will be anywhere from 2 to 6 degrees centigrade hotter than it is now. Any skeptic familiar with the history of prediction who sees such a wide range in forecasts for conditions a century out based on imperfectly understood science, should simply laugh at anyone wasting time on them.

Instead, as skeptics, let us concern ourselves with the immediate questions of whether the earth is going through a warming phase and, if it is, whether that warming phase can be connected to human activity. A check of recently published materials turns up some surprising answers.

I was slowly being convinced that the climate was changing abnormally, and that I could yet be eaten by crocodiles, before I read the papers from a conference "Managing Climate Change — Practicalities and Realities in a Post-Kyoto Future" held in Canberra in early April and convened by Alan Oxley, chairman of the Apec (Australian Asia Pacific Economic Co-operation) study centre at Monash University in Melbourne.

The conference proved to be a gathering of distinguished scientists and economists who had some harsh things to say about the science behind the Greenhouse debate. Chief among these was a paper by Ross McKittrick, of the Department of Economics at the University of Guelph in Ontario, Canada. McKittrick says that a key part of the IPCC case for global warming — and certainly the centrepiece display in any printed material — is an analysis of data mainly from tree rings, but include the likes of ice cores and coral rings, which seems to show a sharp, recent increase in tempera-

ture. This so called "hockey stick" graph, produced by a group of scientists led by Michael Mann, a climatologist at the University of Virginia, shows that the earth's average temperature was relatively stable until about the beginning of the twentieth century and then climbed sharply upwards, warming by about a degree over the century. The tip of this hockey stick, the last 20 years or so, relies on instrument data.

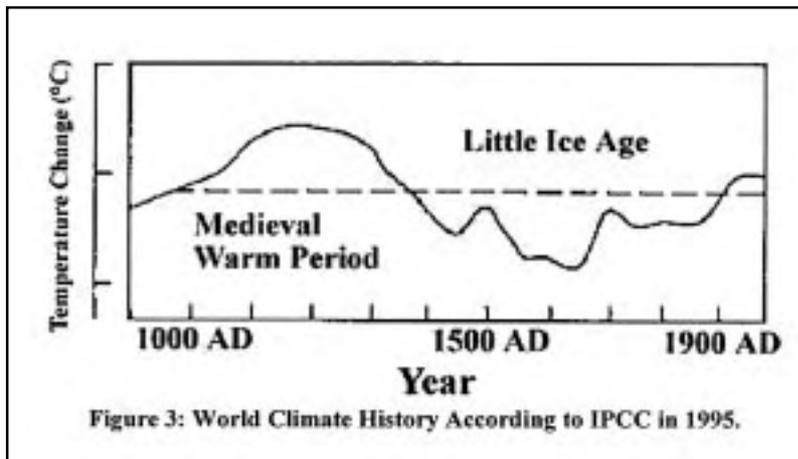


Figure 3: World Climate History According to IPCC in 1995.

One of the key points about this graph is not so much the sharp increase at the end (to be discussed later) but that it does away with the so called Medieval Warming Period. This is a variation in the earth's climate that was widely accepted (that is, before the hockey stick work) in which the earth warmed up perhaps half a degree or so (the warm period) then cooled by a degree or so (the little ice age) and then warmed up again, all in about 1,000 years. Some scholars have tried blaming the Viking raids on the warm period's affect on climate in Scandinavia and the little ice age has been blamed for the very cold winters that feature in the literature of Dickens. In that previously accepted sequence, even now the earth might still not have warmed up beyond Medieval temperatures — a highly inconvenient fact for greenhouse proponents.

McKittrick says that the warm period-little ice age sequence was confirmed by a group led by Shaopeng Huang of the University of Michigan which analysed data from

6,000 boreholes (published in *Geophysical Research Letters* in 1997, Vol 24 No 15). That analysis was not shown in the latest IPCC report, and that report also downplayed satellite measurements of tropospheric temperatures of the last 20 years or so which also did not show any rising trend in temperatures.

An even bigger problem with the panel's case, McKittrick alleges, is that Mann and his colleagues

messed up their analysis. In essence he is saying their analysis gave considerable weighting to any temperature increases at the end of the data series. As a result, a set of tree rings from a place called Sheep Mountain in California, known to have been affected in the Twentieth Century perhaps by the nearby

use of fertiliser, threw out the whole series, giving it the hockey stick shape. Take out those tree rings and you are left with no pronounced change. In fact, McKittrick says, if you feed in a lot of random signals then you still get a hockey stick as Mann's approach emphasizes any random increases that occur at the end of the data series. Further, the corrected analysis of the original data shows both the medieval warm period and little ice age. Please note that this still means the Earth as been warming up of late, but as part of its ongoing recovery from the little ice age. Whether there has been anything out of the ordinary in the last 30 years or so of change is unclear.

This argument is difficult for laymen such as the writer to assess but there are indications that McKittrick is winning. A recent article in *New Scientist* (February 12, 2005), which otherwise sneers at Greenhouse skeptics as being either retired or outside the mainstream of environmental research, notes that;

skeptics say the methodology system-

atically underestimates past variability by smoothing out peak and troughs, and they are winning the argument. Scientists at the UK met office and other IPCC stalwarts were among those who reported late last year (in the journal) Science that the hockey stick analysis contains 'assumptions that are not permissible'.

In fairness, the same article also points to arguments over adjustments to the satellite data which has proved to be inconvenient for Greenhouse proponents, saying those adjustments are incorrect.

Other speakers at the recent climate change conference in Canberra had wounding things to say about the IPCC. A paper by Robert M. Carter of the Marine Geophysical Laboratory at James Cook University in Townsville, says that the IPCC is an unabashedly political, not scientific, organisation". It has based its assertions on the hockey stick graph, ground based temperature measurements (the last part of the hockey stick) and computer models used to make predictions 50 to 100 years out, "each of which has been demonstrated to be unsound". Further, the focus of IPCC activity has been on comparing contemporary climate change with that of the last 1,000-2,000 years. "This is a ridiculously short and atypical period over which to seek to understand climate change."

A lot is now understood about large scale changes from study of sediment cores and ice cores, Carter says, including the general agreed facts that the earth has been gradually cooling down from a period five million years ago, when it was several degrees warmer than it is now. Superimposed on that cooling is a

number of heating and cooling cycles, controlled by a number of factors including changes in earth's orbital geometry (the earth's orbit shifts in a very slow cycle). These cycles are widely accepted.

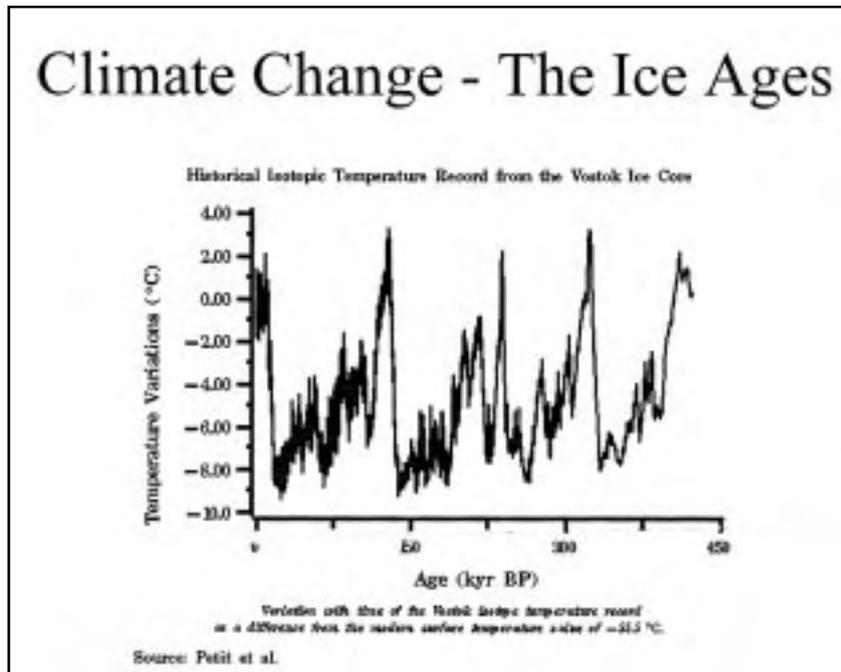
Earth cooling rather than warming up it is worth noting an article in the March issue of *Scientific American* by William F. Ruddiman, a marine geologist at the University of Virginia. In the article Ruddiman

claims that the earth would have been much cooler by now had it not been for human agricultural activity throughout history. He says that greenhouse gases stopped following the glacial-inter glacial cycle some eight thousand years ago, about when humans invented agriculture, thanks to all the additional carbon dioxide and methane produced. The most recent changes due to

industrial activity is just one part of human affect on climate, which has had the overall effect of stopping the earth from sliding into the next glacial period. However, apparently using the hockey stick numbers for the last part of his calculations, he also says that the earth will become much hotter than is natural for an interglacial period, due to the extra gases.

Whatever you may make of such arguments it is not what the Greenhouse proponents want to hear and they have not been idle during all of this. The March issue of *Scientific American* cited above, features an interview with Michael Mann which says he published a full reply to his critics in the journal *Nature* in 2004, and showed that the Medieval Warming Period and Little Ice Age were local phenomena. The magazine article says that "petroleum interests" are behind the criticism.

Mann also defends himself at length on a website set up in conjunction with like minded scientists www.realclimate.com. On the site,



Carter's paper says that in the last 0.6 million years the earth has oscillated between ice ages and warm or interglacial periods in cycles of about 100,000 with the earth being mostly much cooler than it is now. All of human history has occupied one such warm period which has already reached its use-by date, but there is nothing to indicate that climate is now changing at a faster rate than it has changed in the past. In fact, other interglacial periods have been warmer. Further, changes in carbon dioxide content of the atmosphere have followed climate change instead of preceding it. There is still much to understand in the influences on climate changes but the mostly likely future trend, to judge from the known cycles affecting climate, is for the earth to cool rather than warm up, Carter says. Readers who want to explore this issue further can look at the web site (www.climatechange.com.au) which includes papers by heretics, as well as one or two from the pure faith.

But on the last point about the

A Fertile Field for Skeptics

in part he says that the McKittrick and Co's supposed corrections are in error due to "censoring by the authors of key proxy data in the original Mann et al (1998) dataset". The website notes that the claims have been "further discredited" in the peer-reviewed scientific literature, in a paper in the American Meteorological Society journal, *of Climate* by Rutherford and colleagues (2004).

As everyone involved is quick to point out, the hockey stick graph is not the only piece of evidence for undue greenhouse warming, but it was the most persuasive and is now looking doubtful indeed. Considerably more work, argument and analysis of data sets will be required before anyone can say what is happening, and whether any current warming is abnormal.

Mann seems to tentatively agree with this. In the same refutation of his critics cited above he notes:

Numerous studies suggest that hemispheric mean warmth for the late 20th century (that is, the past few decades) appears to exceed the warmth of any comparable length period over the past thousand years or longer, taking into account the uncertainties in the estimates. On the other hand, in the context of the long-term reconstructions, the early 20th century appears to have been a relatively cold period while the mid 20th century was comparable in warmth, by most estimates, to peak Medieval warmth. It is not the average 20th century warmth, but the magnitude of warming during the 20th century, and the level of warmth observed during the past few decades, which appear to be anomalous in a long-term context.

The IPCC is due to meet in May. It is unlikely to abandon its prize piece of evidence without a fight but, unquestionably, global climate is proving considerably more complicated than anyone expected, and I may yet avoid being eaten by crocodiles.



***On Bullshit*; Harry G Frankfurt; Princeton University Press 2005. US\$9.95 (hardcover).**

The top flight American university presses (and Princeton certainly is one) are refreshingly uninhibited in the topics they publish. Hence we have a small but thoughtful monograph on a subject with which we are all too familiar, but is seldom if at all studied.

Princeton Emeritus Philosophy Professor Harry Frankfurt has dipped his analytical toes into a very murky pool indeed, attempting to define what is almost indefinable. Bullshit may range from lies to nonsense. "Never tell a lie when you can bullshit your way through" was A A Simpson's advice from his father. The intent of bullshit may extend from pure deceit to pretension and bombast. These and many other shades of meaning are entertainingly explored by Prof Frankfurt. He also explores the many uses of bullshit, humbug, bunkum or whatever you like to call it. I just loved Frankfurt's portrayal of some familiar bullshit sources. I quote him in full:

The realms of advertising and of public relations, and the nowadays closely related realm of politics, are replete with instances of bullshit so unmitigated that they can serve among the most indisputable and classic paradigms of the concept. And in these realms there are exquisitely sophisticated craftsmen who — with the help of advanced and demanding techniques of market research, of public opinion polling, of psychological testing and so forth — dedicate themselves tirelessly to getting every word and image they produce exactly right.

Right on!

Prof Frankfurt goes on to discuss the role of intent in distinguishing downright lying from less serious carelessness of truth and detail. He drags in a lengthy anecdote on Wittgenstein's purist attitude to a comparison between human experience (of a serious injury) and what that person imagines an injured dog might feel. Mercifully, Frankfurt returns to clarifying the nature of bullshit, with examples of usage and terminology. I found myself thinking that the word "crap" is sufficiently accommodating as a descriptor.

The *Macquarie Dictionary* cites rubbish and nonsense as valid meanings and the *Macquarie Thesaurus* does include the word crap. But crap is a word Frankfurt avoids although I believe it to be frequently employed by Americans as a synonym for bullshit.

I must admit that I did not know quite what to expect from Frankfurt's 67-page essay. Maybe some concise advice on how to infallibly identify bullshit. As skeptics we like to think we have pretty good bullshit detectors but, alas, the same cannot be said of the general populace whose gullibility is frequently astonishing. *On Bullshit* is a tad too scholarly to appeal to the masses. It is more to the liking of those who wish to explore the motivations of liars and bullshitters. As a corollary one can say that where there is money or influence to be made from bullshit its originators and propagators will continue to operate. In consequence, bullshit will always be with us. It is even part of our nature.

As Professor Frankfurt concludes, after a scathing summation on how much we humans delude ourselves, "sincerity itself is bullshit."

Colin Keay

Star Dreams

A recent special screening of the documentary *Star Dreams* produced by Canadian Robert Nichol was advertised as “an exhilarating and provocative documentary about crop circles. The advertising also claimed that the program was “highly objective”. It was anything but objective, as we were about to find out.

The vast majority of those in attendance appeared to be dedicated “New Agers” and other believers in the paranormal. This fact was borne out in question time when, apart from Richard Saunders and myself, there were no skeptical responses or questions. Among the attendees were members of Sydney’s UFO club who, interestingly enough, were of the opinion that crop circles were *not* caused by UFOs but by other strange paranormal phenomena. Despite the enthusiasm of those present, the turnout was only about a third of the cinema’s capacity, not the sellout crowd the organisers had boasted.

The film displayed footage of a large number of crop circles, some of them quite intricate and beautiful. This was interspersed with ‘expert analysis’ from self-styled UFO researchers, paranormal enthusiasts and farmers on whose properties the circles and patterns appeared.

One of the explanations put forward was that energy fields emitted by ‘Mother Earth’ created the circles. These were supposedly warnings for humans to stop damaging the environment and start operating with a more ‘holistic’ approach. What they actually meant by this was unclear. Some other explanations were more specific: circles are the handiwork of gray-coloured aliens who are dutifully following the orders of the galactic federation. This federation was taken as given and spoken about as though knowledge of its existence was as common as that of the United Nations or NATO.

The claims extended well beyond crop circles. It was even asserted that human beings would all have 13 strands

of DNA by the end of the Mayan calendar (2012). Also, human cell structure will change enabling us to receive higher vibrations sent to us in the form of messages from aliens. I hope all the biologists and geneticists out there are getting ready for this mammoth change in our makeup. And to think we were worried about the Y2K bug!

A number of the crop formations on show were well known hoaxes with one even containing a spelling error. Although the evidence is very strong that all crop circles are the products of talented human artists, the panelists quickly dismissed this explanation because “some of the circles are far too complex to be hoaxed overnight”. Have a look at <http://circlemakers.org/> for evidence of very intricate and amazing crop circles that have been made by people who do this as their hobby. They even have photos of themselves making them. Another rebuttal proffered by the true believers is the alleged lack of “practice circles” created by the hoaxers. But funnily enough, when examples of more basic, rudimentary designs are given, they also attribute these to the paranormal.

The thing that really struck me about this whole evening was that crop circle belief is not limited to just UFOs and circles in paddocks. If it were, one could be forgiven for writing it off as harmless eccentricity. What I discovered was that it was only a part of an entire worldview based on pseudoscience and fuzzy thinking. There is no objective approach to determining what claims are right or wrong.

The film contained quite a number of crop circle explanations that were clearly mutually exclusive — they couldn’t all be correct. I challenged one of the crop circle experts on this very point in the question time that followed the film. Her response was that this was no problem at all — what can be true for me may not be the same as what is true for another. The advice given was to “take your pick” and

choose the explanations that work best for you. While this relativistic approach may have some application to subjective concepts like love or tastes in music, surely a crop circle could either have been created by aliens from the Galactic Federation or by Mother Earth — but not both! I persisted with this line but was chastised for being a linear thinker like Isaac Newton. Well at least I’m in good company.

As we were leaving, Richard asked one of the organisers whether she thought there was anyone on the film whose crop circle theory was just too whacko or unbelievable. She seemed quite perplexed that anyone should have a negative view of any of the circle explanations on offer. I made my argument to her that the diverse beliefs cannot all be correct. Her expression in response revealed that this was a point she had not pondered until now, but she still answered that all the different explanations were equally correct.

Particularly disappointing was the presence of some school-age children in the audience who seemed to be enthusiastically supporting the views of the speakers and the film. We cannot allow the minds of the young to be moulded by the pseudoscience and irrationality so prevalent in believers like this. This is all the more reason to place a greater emphasis on teaching critical thinking in schools.

Nonetheless the evening was a good learning experience for me. I discovered that the mumbo-jumbo preached by these groups is much weirder and much more extensive in its scope than I had previously assumed.

John Sweatman



Let The Idiot Kill Himself:

or a cynical view of a philosophy of governance.

Mark Freeman
Kuranda. QLD

I live in the small, beautiful village of Kuranda perched in the naturally air-conditioned mountains behind Cairns. It is an envious lifestyle for those people who are prepared to do without shopping centres, opera houses and cable television. I much prefer it to the fetid malarial swamp beneath, and certainly to those metropolises such as Brisbane and Sydney which have climate rather than weather and where the air actually smells bad.

However, this idyllic paradise has drawn, like a rotten carcass draws maggots, more weirdos per head of population than most places on earth. I include myself in the category of being a little eccentric — so I fit in well. I point out that those of you drenched in the close confines of academia also suffer a large percent-



Mark Freeman DD. (Diogenes Disciple) who resorted to a pen sketch after totally destroying the digital camera lens of two of his now unhappy daughters.

age of weirdness, but because your glasses tend to be tinted similarly, you don't notice it as much. This Kuranda diversity of opinion, most of it based on a quagmire foundation of supposition and the ranting of self espoused saviours, has fortunately perverted my youthful skepticism into a positive form of cynicism. I stress the positiveness. I honestly believe that most people, including politicians, actively try to do the best or right thing, but are sadly frequently doomed to eventual failure due to an inability to view their actions in the long term. Most people are much better at 20/20 hindsight than at rational future speculation. As a species, we like to fix problems and as such, usually do little until we have actually created one.

An almost unspoken philosophy, adopted by governments throughout Australia and enforced and encouraged by our legal system, can basically be summed up as "We must not let the idiot kill himself". There has always been a varying level of this feeling in governance, but it has become vastly reinforced over the past fifty years or so. Perhaps a few examples will clarify this philosophy in action.

Falling at the falls

Forty years ago, frail grandmothers in long black dresses and carrying umbrellas (to keep the spray off their blue VO5'ed hair perms), descended and re-climbed the several hundred slippery stairs that led from the Barron Falls railway station to the base of the falls. In those days, the stairs were much more dangerous than now because the falls actually

ran all of the time and as such the stairs were always wet and covered in slime. Many young men, in a fit of bravado, used to race down and up these stairs. If you are stupid, especially if your established immortality was reinforced by alcohol, there were plenty of places where you could fall off the path. Many did and a select very few managed to do such a good job of it that they fell the 100 or so meters to the gorge floor. Surprisingly this was not always fatal but always caused serious dents to their persona. Essentially, to save young idiots from themselves and the government from litigation, these stairs have been closed for many years.

This enactment has caused inconvenience to the many in order to save the few — those who essentially killed themselves through stupidity and miss-adventure.

All legislation has this sad effect. It is axiomatic that any legislation or regulation that is designed to do good in one form, inevitably does harm in another. The sad contradiction is that legislation that is designed to do harm, does not necessarily do good to anyone! All legislation limits freedom. The old "Thou shalt not kill" has the accent on the "not" and limits the freedom of action of some — even if that limitation is seen to be to the benefit of the vast majority. However, an enactment that stated "Thou shalt kill" would benefit none and harm many — in the long term.

Childs play

The prior example of the stairway does not really impinge on us because the situation is so removed

from out normal daily lives. However, the following may cut through the epidermis and stab a muscle.

Again we go back forty years to primary schools all over Australia. In those days, children at school played football, cricket and such games as 'red rover'. They were violent games and demanded physical stamina, team skills and a will to win against the odds. The more informal and unstructured games such as "Red Rover" frequently involved the entire school student population. Several additional rules were often forced by peer pressure with amendments such as "big" kids cannot catch "little" kids.

There is no doubt that these violent games caused numerous sprains, broken bones and the occasional death.

These days, we play "Kanga Cricket" which is an emasculated form of the game where much of the violence (and potential for violence) has been removed. Whilst team work is important, the drive to win has also been emasculated. A game like "Red Rover" is totally forbidden. For every year since such school sporting violence was banned, I am sure that there are at least five children Australia wide who avoided death or permanent disability because of this change. It seems so obvious that the change was a "good" thing — even if only one child was saved.

Unfortunately, primary school student participation in exercise has also plummeted and Australia's children now face levels of obesity, lethargy and non-involvement never previously seen. Asthma and other diseases contributed to by a lack of physical fitness are also at record levels. These diseases and conditions kill or make infirm, hundreds of children annually. Are the two connected? I certainly don't know to what extent, because of the plethora of other considerations such as fast food, television, computers and other lifestyle changes that have also had considerable bearing. But without doubt, there is some connection. Maybe we have saved five and killed fifty. Maybe the opposite is true.

Possibly there is someone out there who could earn their PhD on such a study designed to determine exact correlation. Unfortunately, the variables are so numerous that whatever result is determined will never be believed by the inevitable opponents of the findings.

I well understand how the mother who sees her fit young child struck down in death due to schoolyard violent games can say "This must be stopped — it is killing our children!" No mother ever says "Bring back violent, enjoyable games for our children's fitness" as she watches her child die from acute bronchitis. Therefore the legislators enact the laws and bureaucrats draw up the guidelines and it can take centuries before the full results of our actions are realised.

This type of scenario raises the question of "Have we gone too far in protection of the populace?" Should we take a long, strong, skeptical look at the way we propagate laws and examine if we really want the limitations that they inevitably engender?

Last year in Queensland, the parliament enacted over 9000 pages of new laws. Nobody, including those who raised their hands and imposed these laws, can say they have understood what those laws mean, let alone their long term ramifications. Nobody would even have a full knowledge of what is now illegal that was legal a couple of years ago. They are so diverse in scope that some of them will be repealed or amended before they are even enforced, perhaps decades into the future.

Divorce

Without wanting to sound like the old Oxford song "Forty years on when afar ..." we will take another example — again involving children because that is the easiest emotive trigger. Those short four decades ago, divorce was much more difficult and "incompatibility" had nothing to do with it. Incest, adultery and absolute mayhem might do the trick — but then again — maybe it wouldn't. There were certainly many unhappy marriages, some of which were unac-

ceptably violent. It sounds a lot like today really although often they are now unacceptably violent relationships. Many marriages stayed together "because of the kids". Then family law changed and essentially a twelve month separation was enough to prove "Irretrievable breakdown in marriage". All of a sudden, far more children were faced with the situation of partial or total severance from a familiar and familial lifestyle. Sure, in the past many had lived with severe home arguments and unhappy parents. However, they did have a stable household environment and did have two parents who contributed to their development.

In many divorces, the biggest concern to the children is the uncertainty and sundering of the 'livable' environment. I know there are thousands of examples where people will tell me how wrong their relationship was and how much better off their children are away from that "beast". I know that there are thousands of examples where the children are actually and provably better off in a divorced environment. I also know that there are thousands of cases where, whatever viewpoint is proposed, can be proved to be the opposite.

What I am suggesting is that we have enacted legislation that has increased the freedom of spouses and spices throughout Australia and that this legislation has as a direct result impinged and reduced the stability and beneficial environment of thousands of children. Which is better in the balance? I don't know and after reading numerous studies on the subject — many of whose conclusions are directly contradictory — I don't think anybody has a firm foundation for their averials.

Without exception, all of the studies ignore or demean relevant data. I doubt if any report or thesial author was surprised by their conclusions. I was surprised that some of them reached their conclusions as a result of the statistics enumerated. However, as academia knows well, "it is how you play the game that counts".

The law is the law (sometimes an ass)

These three examples only slightly impinge on the tip of the iceberg. As the *Titanic* could attest — it is what is underneath that counts. What our society faces is an acceptance, a condoning and encouragement of protection at all costs. The third sector of democratic implementation, the judiciary, have also supported and implemented this societal change. Their excuse is that they don't have a choice because they only rule on enacted law. However, this is often not the case because a precedent can totally change the envisioned result of a law. I am sure that no politician ever predicted that a burglar could successfully sue a homeowner when he injured himself when breaking into the house. Nevertheless, that has occurred.

Another recent example was where damages were awarded to a girl who had been told not to play on a neighbour's trampoline because it was dangerous. The girl understood the instruction and was aware of the danger — but jumped all the same. Her broken arm cost the trampoline owner \$20,000 — because he *could* (not *should*) have taken further action to prevent an injury.

What I am suggesting for your cogitation is that we have swung too far towards the protection phase. Maybe we have come from a state where protection was too little and now the pendulum is nearing the apogee — but maybe it isn't and we will continue further along the protectionist path.

Maybe our basis of law needs a strongly rational and skeptical examination. Perhaps all vehicles could have a speed governing device fitted that would limit top speed to 110 kph. Then we can return many of the traffic police to real police work and still retain the advantages of the much reduced road fatalities we have achieved over the past 40 years. The present situation where new vehicle advertising stresses power and speed when it is illegal to use it is bizarre. It is like someone advertising the use of heroin when such use is illegal.

If smoking is so bad, and as a smoker I happily admit it is a disgusting addiction, all smoking could be limited to the tobacco that you grow yourself. Perhaps the same could be implemented for marijuana and opium poppies. Rather than limiting freedoms — we could limit capability.

It has been known that incarceration in jails has little effect on crime rates since this continent was settled by the British. However, that hasn't changed the swings from high to low levels of prison population over the centuries. At the moment we are going through a high stage and are re-discovering that it still doesn't work. Rates of crime are, generally speaking, about the same as they were 200 years ago or 2000 years ago. Perhaps a rational and skeptical look at the problem may come up with a colour based, time limited branding of foreheads. Say six months with a green forehead for burglary and twenty years of bright purple for child molestation. This would engender the most important and effective deterrent available to any societal animal. Peer pressure, especially peer repulsion, has enormous ability to reform and modify behavioural traits.

Protecting people from themselves

Perhaps we should realistically accept that young men are often foolhardy and manage to kill or seriously injure themselves. We could accept that no amount of care will stop many young ladies from falling over backwards as soon as they are old enough to wear high heels. Any legislation designed to prevent these occurrences is doomed to failure. An alternative could be to start education of primary age children on the perils they face when they turn into omnipotent buckets of hormones. Adolescence comes as such confusing surprise to so many — usually with no understanding of what is happening to their being.

Perhaps we should then accept that if someone is stupid enough to kill or maim themselves, after warning and education, then it is their

own fault. Sure we would still be sorry that a young man was so stupid or unlucky that he died, but recognise that it was essentially his choice and that society as a whole is not responsible. If he kills or injures others in his seeking of ego, then he faces the full penalties for his stupidity.

I am not saying that any of the above should be implemented. What I am saying is that the protectionist policy of enactments does not work, has never worked and cannot be amended in any way to make it work. Misfortune, daring and gross stupidity will invariably defeat any protectionist process. We can ameliorate the process — but the casting of fault towards individuals, or society as a whole, is an unreasoned response.

I am also saying that legislation should be looked at rationally and limitations on freedoms limited. Laws should not damage thousands in order to save a few. We should recognise that we are mortal and no amount of expenditure, effort or enactment is going to change the eventual outcome. We should return the option of self decision to the individual, even if it results to their personal harm.

In essence, I am suggesting that a fully skeptical and rational viewpoint towards governance has the potential of making a freer society. We should apply our intellect to governance not only at election time, when integrity is at its minimum, but also throughout the term when the real lifestyle changes are being enforced. *Hansard* is easy to obtain and, fortunately, most parliamentary representatives cannot dodge easily if you really want to approach them in a constructive manner. In my experience, most welcome an informed, rational and constructive input.

I admit that sometimes it takes years to achieve the aim of reasoned enactment — but fortunately on some issues, I have had those years and have had some success.



Seeking the Truth About AltMed

Iolanda Grey
Glenhaven NSW

The Autumn 2005 edition of *the Skeptic* was the first I've ever read, and although I'm very new to "learned skepticism" I have some comments that I'd like to share with other readers. Things that I learnt whilst undergoing treatment for cancer and a separate, rare brain injury.

Antioxidants

As everyone will appreciate, cancer patients and families are very vulnerable to "quackeries" and alternative medicine generally, many of which purport to be a medical help or cure to their problems. After completing chemotherapy but before starting radiotherapy, I went to see a naturopath who sold me various vitamins and antioxidants. It was only a few weeks later that I reread "Good advice on diet and cancer" put out by the NSW Cancer Council that said that "supplements containing large doses of vitamin A can be dangerous to health".

Bearing in mind this comment, on day 11 of my 18 day radiotherapy treatment, I asked my radiologist what it meant, especially considering I was taking antioxidants (vitamins A, C and E). To my surprise I was told that they were bad for my treatment as they reduced the potency of the radiation treatment. This was because the antioxidants protected the cancer cells along with the normal cells. And to think that I specifically didn't mention it earlier because I thought that vitamins were natural and thus OK!

The reasoning behind this way of thinking is simple — it's thought that the antioxidants protect cells from damage by free radicals and other toxins. They block the chemi-

cal reactions that create free radicals, which can damage DNA and promote a variety of degenerative changes in cells. Chemotherapy and radiation generate free radicals; that is how they kill the dividing cells. By taking anti-oxidants during treatment (whether it be chemotherapy or radiotherapy) it's thought that you would be reducing the effectiveness of the treatment.

My radiologist then referred me specifically to the CARET and ATBC trials to illustrate how taking a supplement — in this instance, of betacarotene — had resulted in an unexpected and alarming increase in lung cancer diagnoses in the smokers in these studies. Up until this time studies had shown the health benefits of betacarotene from food sources so they didn't expect anything different from these ones.

In 1994 the ATBC study showed that smokers taking 20mg supplements for 5 – 8 years actually increased their risk of contracting lung cancer by 20%. There was also a 10% increase in heart disease overall and a 20% increase in strokes amongst those taking the supplements.

This was followed up in 1996 by the CARET study that did more than confirm the ATBC findings. In fact, there were almost 50% more lung cancer diagnoses (including a 17% higher chance of dying) with the current and former smokers in this study, the results of which were so alarming that the study was stopped almost 2 years early. It must be noted however that these studies were carried out with a high dosage of betacarotene of 20 – 50 mg per day. There is no current evidence that small amounts of the supplement (such as found in a multivitamin) is unsafe.

And as if these studies weren't bad enough, after further analysis of the results a negative effect was

found from taking the betacarotene supplements on normal fruit and vegetable consumption. That is, those smokers who took the supplements didn't get any nutritional benefit from consuming natural fruit and vegetables. The main thing that I concluded is that supplements are very different to natural whole foods, and don't appear have the same preventative benefit. This was confirmed in July 2004 when researchers analysed the ATBC study results and found that the consumption of DIETARY anti-oxidants reduced the risk of lung cancer in the smokers by 16%.

We all know how government authorities need convincing before making public health declarations and statements. Well, in 2003 UK safety experts went so far as to advise smokers not to take betacarotene supplements and advised everyone to limit their daily intake of high dose betacarotene.

Bearing in mind this ambiguity, and the theoretical and statistical information against anti-oxidants, in 1999 I approached the leading antioxidant manufacturer, Blackmores, for their comment. Given there hasn't been any change in the area, I'll share with you what they had to say on their site:

I have been asked to write an article about cancer and antioxidants based on the concerns raised by the CARET and ATBC trials. Given the space limits that I have I am not sure that I will be able to cover all the relevant points properly and may even raise more questions than give answers.

The use of antioxidants in cancer presents a number of paradoxes.

The first of many is that oxygen and iron, while both mandatory for our

existence, are also toxic to us via their capacity to produce free radicals species (FRS) and as such we have been forced to develop an antioxidant system to protect ourselves.

Whilst increased production of FRS have been implicated in the pathogenesis of cancers either directly or indirectly, it is believed that some cancer cells are actually resistant to free radical attack making them harder to kill off. It seems that some cancer drugs may work because they generate FRS. One novel cancer therapy includes the infusion of specific fatty acid compounds, that in test-tube tests have been shown to be cytotoxic to certain cancer cell lines, because of their ability to generate FRS. Yet tamoxifen is known to be an antioxidant and it is believed that under certain conditions high dose antioxidants may act as pro-oxidants!

Epidemiological studies have shown that diets high in fruits and vegetables (ie high in antioxidants) or users of vitamin supplements can have a lower incidence of cancers. The CARET and ATBC trials showed that high dose betacarotene supplementation caused an increase in cancer risk in those persons already at high risk of lung cancer, particularly smokers, causing one of the trials to be stopped prematurely. Yet a clinical trial with selenium produced a dramatic reduction in many but not all types of cancers, again causing the trial to be stopped prematurely but for the opposite reason.

Are antioxidant supplements likely to be of use when a person has cancer? I believe a blanket yes or no cannot be given at this point. There appears, as highlighted above, to be contradictory basic scientific evidence. Yet we do know that antioxidant supplementation with concurrent cancer therapy can be beneficial in terms of reducing side-

effects hence perhaps prolonging the ability to receive therapy. On a more active front a preliminary trial into the effect of vitamin E and selenium in prostate cancer is to begin in Australia this year. It is also important to point out that antioxidant vitamins such as vitamin C, E and carotene have non-antioxidant functions that may be important in cancer as well.

Chris Oliver

Blackmores Research Centre

Unfortunately there is no answer as yet as to the risks or benefits to be gained from taking supplements. The jury is still out.

Sweeteners

Second, I'd like to reinforce and add something to what Glen Cardwell said in passing in his *Nutrition Myth* column on artificial sweeteners. He said "don't think that sugar substitutes will make you ... immune to tooth decay", however only mentioned the "need to brush and floss your teeth". One enormous problem is that of dental erosion. My brain injury has given me chronic thirst and my radiotherapy regime was on my neck and consequently near my mouth, so I experienced significant thirst and oral discomfort overall. My long term saliva production is also lower because of permanent radiation damage to the largest of the salivary glands, the parotid gland. But this should also be of interest to "healthy" people as some may have low saliva levels and dry mouths for other reasons. Or else they might be consuming them in a way or at a time that puts them at a high risk of erosion.

At the time I thought I was looking after my teeth by drinking no sugar (artificially sweetened) lemon cordial and sucking artificially sweetened lemon sweets. But what I didn't know was that the lemon fla-

vouring was acidic and the many small sips I was taking were rotting a rear molar, which ultimately required me to have root canal therapy on that tooth. My low saliva levels meant that I had less natural saliva to buffer the acids in the cordial and sweets. The low pH of the cordial that I was sipping had actually caused the tooth enamel to dissolve. When I looked into it further I found that pH levels lower than 5.5 have the potential to erode tooth enamel. (pH basically measures acidity levels — the lower the pH the higher the acidity). Just visit Coca-Cola's internet site and you'll see them openly disclose pH levels between 2.5 and 3.2 in their drinks. Highly erosive if you drink them on a dry palate (for example, during or after exercise) or in small and frequent sips.

As you can see, trying to do what's best for yourself is very difficult, and you certainly can't believe everything you read and hear, even if it's from people who you think you can trust. But then you shouldn't let it all dictate your life. A happy medium is definitely best.

Some Relevant References

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National Convention Aug 13-14

Letters

Who's to Blame?

Sydney Bockner
Crafers SA

Barry Williams' remarkable editorial (25:1) on the December 26 tsunami was a valuable lesson on how skeptics should deal with their aversion to religion. The attitude he adopts was measured, thoughtful and dispassionate. There was no ridicule and no humour (at the victims' expense).

One may be tempted to describe religion as a ridiculous superstition. Disasters such as storms, earthquakes and tsunamis are acts of God, as defined by insurance companies. If any being could be responsible for such acts he would be diagnosed as a psychopathic personality. But before laying blame it is as well to recall Richard Dawkins who writes;

Nature is not cruel, only pitilessly indifferent. This is one of the hardest lessons for humans to learn. We cannot admit that things might be neither good nor evil, neither cruel nor kind, but simply callous—indifferent to all suffering, lacking all purpose.

(River Out of Eden, 1995, p.96)

Behaviour and belief

David Fisher
Cashmere QLD

In the Autumn 2005 issue of 'the skeptic' Daniel Stewart wrote:

When I read the first Harry Potter

book it struck me that Harry was a great example of Christian living! He risked his life so that, for unselfish reasons, he could fight for good against the forces of evil.

As a skeptic I know of no reliable evidence that Christians behave any better than other people. A Jew might say of a person whose behaviour he or she approved of, "He's a real Jew." In the USSR, "He's a real communist." might have been said of a good person.

I am not aware that Harry Potter believes in any of the unprovable propositions Christians are supposed to agree with. Fighting for good does not make one a Christian. Even Jesus, the centre of the Christian religion, was supposed to be sinless but he was not a Christian.

It is common among believers of any stripe to equate goodness with sharing their belief.

Anecdotal not enough

Loretta Marron
Burpengary QLD

In response to Ron Marke "Anecdotal support" (*Letters*, 25:1 p56). As a breast cancer survivor I get really angry at anecdotal statements from people like Ron who talk about "one lady I know quite well" being pronounced 'cancer free' 10 years ago after taking green barley, multivitamins, and herbal preparations. What a load of Bollocks!!! I can tell you now she never had breast cancer. Get her to email me and let me hear it first hand. Make

sure she also sends along a copy of her biopsy report — let's debunk this myth NOW.

Thirty women are diagnosed every day and five women die every day in Australia from breast cancer. Ridiculous and clearly inaccurate statements by Ron can lead women to an unnecessarily early grave.

I also have a friend I have known over 20 years who swears by his naturopath and will do nothing without consulting her. After being diagnosed with lung cancer he moved to the countryside and grew wheatgrass and was soon claiming it had cured him of his lung cancer. His crop was excellent and he gained quite a following of cancer patients eager to purchase his herbal remedy. He has sold his produce with this same 'cured my cancer' story for the past two years.

Earlier this year he was diagnosed with cancer in both lungs and he also contracted pneumonia. He would not take any orthodox medication until he consulted with his naturopath. She told him that the only reason he had lived so long was because he had not undergone orthodox treatment and had taken his wheatgrass but she did give him permission to take antibiotics for his pneumonia. He now has only months to live.

Anecdotal statements are manipulative, misinformed and can be extremely harmful to people at a stage in their lives when they are vulnerable and desperate. The Skeptics philosophy is to 'seek the evidence'. Ron, please 'seek the evidence' and leave the misinformed, dangerous, claptrap to the alternates who wallow in it.

F is where you find it

Michael Vnuk
Newmarket, Qld

In Anthony Wheeler's article, "How Reliable is Our Consciousness" (24:3), he discussed counting the letter 'f' in a short passage, for which most people undercount. He says that the undercounting (due to missing 'f' in several instances of the word 'of') is usually explained by saying that we notice only what we expect to notice. (I got the test correct, but I've seen it many times before. I can't remember how I fared the first time.)

Although this is a satisfactory explanation for many other instances where the brain is tricked, I find it insufficient here. What exactly are we not expecting to notice? Whenever I've seen the test, the text of the passage has varied a bit, but only the 'f's are to be counted, so my guess is that the undercounting might have something to do with the letter itself. If people miss an 'f', they invariably miss it in the word 'of', which is one of the few words in English where 'f' is pronounced as a 'v'. So, I think that as people read the passage to themselves, their internal pronunciation does not make them notice the 'f' in 'of'. The fact that 'of' is a short word possibly compounds the undercounting.

My theory could be tested in several ways. For instance, for finding the 'f's in a passage with no 'of's, I would predict a more accurate count. Or, if people are asked to look in a passage for a letter which has only one pronunciation, such as 'm', I would predict a fairly accurate count. And, if the letter in a passage to be counted has multiple pronunciations (eg 'a' or 'e'), or if it is sometimes silent, such as 'b', then I would predict a less accurate count, somewhat similar to counting 'f's in a passage with 'of's.

Alternatively, people could be asked to read the original passage from bottom to top. I would predict a more accurate count, because people are less inclined to skim while reading the words, and more likely to read slowly and see the individual letters. Cer-

tainly, reading from bottom to top is sometimes used as a technique by editors and proofreaders as a way of checking for particular types of errors.

A far more original answer to counting the number of 'f's, pointed out by my wife Rowena, only works if the original passage is all in upper case. Then, the number of 'F's is 21: that is, 6 on their own, and a further 15 hidden in the 'E's.

Pestiferous

Winston Jackson
East Fremantle WA

I was interested to read the article about plug in electronic pest control devices (25:1).

Whilst I have never heard of the "Pest Free" gadget, I have had some experience with another brand. I have a hobby farm with a house in which our family visits about once or twice a month. The mouse population in the house was prolific to say the least and sometimes we were able to trap up to 10 mice in a 3 or 4 day visit.

When I mentioned the problem to an electrical engineer acquaintance, he said that he had bought a device called "PestXit Duo" from Dick Smith Electronics to try in his mouse populated farmhouse. As a skeptical person like me, he could not accept that "ultrasonic and electromagnetic" technology could banish a comfortable population of rodents, but as the cost was modest, (about \$70.00) he was prepared to give it a try and not divulge his stupidity to anyone. He claimed that to his surprise it worked and was therefore willing to expose himself.

I bought one and plugged it in. That was about 8 months ago. I continued to place mouse traps for about 3 months but caught no more mice. The lazy cats in our family show no recognition of the device when it is switched on and off, even when they are placed close to it. We have seen no evidence of mice since using the device. No

chewed food containers, no droppings, no mice running across the floor. Nothing! The device also claims to banish insects. In this regard it has made no apparent difference.

As a dyed in the wool Skeptic, I don't believe dubious claims without supportive evidence. As a professional engineer, and having carried out a crude test, the evidence tends to support the claim. I can think of no other changes made to the environment other than turning on the gadget.

Surely I didn't catch the last mouse just before I bought the device. There are still plenty in the hay shed.

Bunkum

Tony Trusler
Hawthorne QLD

I said to my wife, "I think I must be psychic". Unable to sleep, I was driven to watch a TV movie in the early hours of the morning for the first time in about 25 years. For a sceptic, I could not have chosen better. On the ABC was a 1950 black and white movie, *Bunco Squad*. The story revolved around members of this special police squad in Los Angeles, established to investigate and, if possible, prosecute persons setting themselves up as fortune tellers, Tarot card readers, mediums and assorted peddlers of what we would call New Age claptrap today (not sure what the equivalent term was back then).

The plot involved a particularly nasty crook who organised a number of independent operators into a group so as to perpetrate a scam on a wealthy widow. Via an elaborate ruse they tricked her into believing that her departed husband wanted her to donate all her money to their organisation.

No doubt the movie did not win many awards at the time. The story line, however, was fascinating. Was there really a special police squad in Los Angeles that did nothing else but try to expose and jail peddlers of the paranormal? Where did the name

“Bunco” come from? If the movie was an accurate portrayal of general community feeling towards clairvoyants and their ilk at that time, then it is very obvious that the general level of scepticism has deteriorated markedly in the past 50 years (particularly in California!)

Mead debate

James Gerrard.
Kew VIC

Mark Newbrook in his continuation of the Mead debate does not add anything significant to it. He is a great discounter of evidence. I take him up on his discounting of Martin Gardner’s conclusion — “Derek Freeman’s conclusions are unshakeable. Mead’s reputation will continue to go downhill and her most famous book has become worthless.”

Gardner’s reputation as a commentator on science matters has been well earned as a former veteran columnist with *Scientific American* and *the Skeptical Inquirer* and author or editor of over sixty books. He featured in Paul Kurtz’s latest collection *Science and Religion* with his article “Science and the Unknowable”.

This correspondence is now closed. **Ed**

Deadlines

Deadlines for contributions to *the Skeptic* :

Spring – August 1

Summer – November 1

Autumn – February 1

Winter – March 1

(Not that contributors ever meet them.)

Humanist Essay Award

As a contribution to public discussion on contemporary issues of concern, the Humanist Society of Victoria, has organised this Humanist Essay Award, in cooperation with Humanist Societies in other states and the Council of Australian Humanist Societies.

Theme:
Creating a better Australia.

Entrants
Open to all persons currently residing in Australia, other than HSV Committee and Essay judging panel and their families.

Prizes
First prize – \$2,000;
second prize – \$500
Both essays to be published in the Australian Humanist.

Entries
Length between 2,500 – 3,000 words in English.
Essay must be consistent with the theme, be previously unpublished and unawarded, and not concurrently submitted elsewhere.
Entries are to be typed, double-spaced and single sided.
Author’s name must not appear on the essay pages. A separate cover sheet should provide the writers

name, essay title, birth date, address, telephone number and email.
Must be lodged at the HSV office, Humanist Society of Victoria Inc.
GPO Box 1555, Melbourne VIC 3001 on or before 31 August 2005.
Essays cannot be returned.

Criteria
Quality writing, forward-looking ideas, freshness of content and approach, and consulted sources will be major elements sought in submitted essays. Contributors may address either one or several issues of their choice consonant with the theme.

Evaluation
The prize winners will be, notified and announced in Australian Humanist No. 80, on or before 30 October 2005.

Entries will be judged by a panel of members of the Humanist Society of Victoria. The HSV reserves the right not to award any prizes in the absence of quality entries.

Humanism is a life philosophy that advocates the use of reason, experience, creativity and free inquiry. Humanist ethics are based on shared human values and the conviction that humanity must take responsibility for its own destiny.

Humanist Society of Victoria Inc.
(Reg. No. A0020272M)
Website: home.vicnet.net.au/~humanist

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AUSTRALIAN SKEPTICS NATIONAL CONVENTION 2005



**August 13th – 14th
Bond University,
University Drive, Robina,
Gold Coast Qld**

Each day six or seven speakers will give presentations on topics and issues relating to health, science, education, critical thinking and others of a more general nature.

Morning & Afternoon Tea and a light lunch will be served by the Bond University Catering Service. A 3-course Dinner (with after-dinner entertainment) will be held at the Private Function Room of the Broadbeach Bowls Club, Surf Parade, on Saturday Night.

Speakers will include:

- Prof Chris Del Mar: Dean of Medicine, Bond University
The Teaching and Practice of Evidence-based Medicine
- Dr Hugh Crone: Microbiologist (formerly of the Dept of Defence Science)
Knowledge and Beliefs in the New Age
- Dr Robert Henry, Southern Cross University
The Social Impact of Biotechnology—A Scientist's View of GM Food
- Dr Colin Keay: Physicist/Astronomer
The Perils of Part Time Power
- Peter Bowditch: VP Australian Skeptics, proprietor of *ratbags.com*
Scams and Mind Control in Multi-level Marketing
- Prof Jim Allan: Lawyer, University of Qld
- Dr William Grey: Philosopher, University of Qld
Hume on Miracles
- Loretta Marron - The Jelly Bean Lady
DIY Health Information Research
- Barry Williams, Editor of *the Skeptic*
*Conspiracy Theories for Every Occasion (if **they** don't get at him first)*
- A Panel of Senior Students from G.C. High Schools is being arranged
Critical Thinking is Cool

The completed list will be posted on the Australian Skeptics website:

www.skeptics.com.au

Inquiries and Bookings:

Lilian Derrick – Hon Secretary, Convention Planning Committee
P.O.Box 8348; Gold Coast Mail Centre, Qld 9726
Tel/Fax: (07) 5593 1882 Email: lderrick@bigpond.net.au
or from the online shop at www.skeptics.com.au

The *Great Skeptic CD*²

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

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

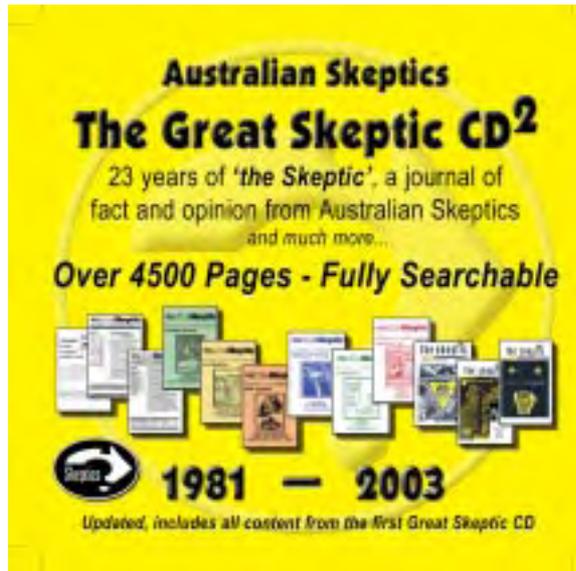
Ah, we hear you cry, *but do you expect me, having forked out \$55 to buy CD*¹, to again cough up a

similar sum to get this new and improved version, even if you are including a set of steak knives?

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

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

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