The worst speculative Sceptic ever I knew,
was a much better Man than the best
superstitious Devotee & Bigot.
David Hume

Fallibility of memory

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Creationist geology

Skeptics in the pub: one year on

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editorial

Having our say on natural health

AS PART of the Memorandum of Understanding between the National and Green parties, the Ministry of Health has been developing proposals for a natural health products scheme to regulate such products on the New Zealand market. To kick this process off the ministry has produced a consultation paper setting out high-level proposals for the scheme and called for submissions on it. The NZ Skeptics were among those who sent in a submission in time for the closing date on 17 May. Vicki Hyde and Michelle Coffey were the principle authors, with contributions from several other society members.

In general, the NZ Skeptics support the scope, purpose and principles of the proposed legislation. We think it's important that the industry has some regulatory oversight to support consumer protection, particularly in the area of claims and proof of efficacy, as well as safety, marketing material and labelling. The use of terms such as 'natural' concerns us as it is used to imply benign, which is not a supportable claim.

In addition we are concerned that there appears to be very little in the way of supervisory oversight or quality control in this industry, particularly with regard to imported products. This is potentially of major concern as, on the rare occasion when such checks have been made, product quality has been found to be severely compromised.

Some 'natural health products' have been found to have significant levels of contaminants such as heavy metals, or to contain pharmaceutical products, such as viagra and paracetamol, deliberately introduced to give the product a measurable effect not obtainable from the 'natural' products.

We believe that informed choice for the consumer is critical in this area, as in all areas relating to health. Labelling requirements need to be clearly defined to ensure that the natural health industry does not use archaic, misleading or inappropriate terminology to boost its claims to the detriment of consumer understanding.

Also, the definition of 'natural health product' needs careful deliberation. This industry has been seen in the past as quick to claim any and all modalities that suit their business.

'Natural health' should be regarded as a marketing term, not a scientific one. The extension of this business into 'synthetic equivalents' gives this industry even more scope for misleading consumers (cf the claims of BZP as providing a 'herbal' high).

There is a link to the full submission on the NZ Skeptics home page (**www.skeptics.org.nz**).

The fallibility of eyewitness memory

Matthew Gerrie

Eyewitness testimony is commonly regarded as very high quality evidence. But recent research has shown there are many ways memories of events can become contaminated. This article is based on a presentation to the NZ Skeptics conference in Wellington, 27 September 2009.

IN 2003, a woman was tragically attacked and raped after leaving a bar in Christchurch. She remembered her assailant as a man with "rat-like" features. Later, she chose the police suspect from a photographic lineup, indicating that she was "90 percent sure" that he was her assailant. This identification became the central piece of evidence that convicted Aaron Farmer. But, in June 2007, Mr Farmer was exonerated after DNA proved that he could not have been the rapist – he had spent almost three years in prison.

Unfortunately, Mr Farmer's case is not an isolated incident. Decades of legal and psychological research have shown that eyewitness identification error is the leading cause of wrongful conviction. Recently the former High Court judge, Sir Thomas Thorp, published an extensive review of legal research on miscarriages of justice. In that paper, he estimated that there are at least 20 innocent people in New Zealand prisons, and he emphasised eyewitness error as a leading cause of convictions. This conclusion fits neatly with exoneration data from the Innocence Project, based in New York. Since 1992, the Innocence Project has exonerated over 250 wrongfully convicted people, over 75 percent of whom were identified by at least one eyewitness.

How can human memory be so fragile as to lead a witness to choose an innocent person from a lineup? Over 30 years of research has shed light on this question. Ultimately, this research has shown that memory can go wrong in several ways. The best way to understand these errors is to think of memory as a three-stage process:

[1] encoding,

[2] retention, and

[3] recall.

At the encoding stage, information is perceived and transferred from the environment, through our senses. These perceptual processes allow us to lay down memory traces. Next, those traces are retained for a period of time. Of course this retention stage can last for anywhere between seconds and years, until finally we recall that information from memory. It is important to know that any one of these three stages can go awry.

Encoding

Encoding depends heavily on our ability to pay attention to information in the environment. However, our attentional systems are limited. We can only pay attention to a few things at once. Anything that does not receive the requisite amount of attention does not have the chance to make it through the encoding phase of memory.

Furthermore, many variables, such as stress, can limit our attentional processes even more. As a result, witnesses will often not pay attention to details that could be forensically relevant. For example, a witness under stress may pay particular attention to the weapon being brandished by the offender, rather than paying attention to his facial details.

If this is the case, those facial details may never be stored in memory, and if information is not stored, it cannot be recalled later.

Retention

The information that makes it into memory can be distorted easily. Perhaps the best known psychological science research in this field is the *misinformation effect* pioneered by Elizabeth Loftus. This research shows that a simple suggestion can change witnesses' memories. In a typical misinformation experiment, there are three stages.

First, participants watch a simulated crime, such as a man stealing a maths book from a bookstore. After a delay, participants are exposed to post-event information (PEI), which is usually a narrative describing the simulated crime. For some participants, the PEI is accurate but generic (eg, "the man stole a book"), and for others the details are misleading (eg, "the man stole a science book").

Finally, participants are questioned to determine their memory's accuracy for the event. These participants are often specifically told to ignore everything they read in the narrative and only rely on what they saw during the event. Typically, those participants who read misleading details during the PEI have less accurate memories than those who read generic information.

This research shows the ease with which a person's memory can be changed. Decades of research have shown that people can come to remember having seen a crime when in fact they have seen an innocuous event. Using this paradigm people can even come to remember having seen an innocuous event, when in fact they have seen a crime. Witnesses can often be exposed to misleading details from co-witnesses, suggestive interviewing techniques or sometimes, media reports of the crime. Any of these sources can lead witnesses to remember details that did not happen.

Research shows that witnesses will often choose from a lineup, even when the actual offender is not present.

Recall

Psychological science has also shown that the way we test witnesses can also affect their memories for what they have seen. Some of the most prolific research in this field has examined the way that we test witnesses' memories for offenders' faces using the lineup technique. Photographic lineups are the most common method of testing eyewitness recall for offenders.

Usually, a lineup depicts a police suspect surrounded by known innocent people – known as distracters. A witness chooses a person from a lineup in the same way that a person chooses an option from multiple-choice question. When people choose the correct answer from a multiple-choice question it is considered evidence that they recognised the correct answer by relying on memory; and when witnesses choose the suspect from a montage, it is considered evidence that they recognised the suspect from the crime scene.

However, people do not always rely on their memory in either multiple-choice questions or lineups. A multiple-choice question can be biased towards the correct answer, as in this example:

What is the capital of Burundi?

Most people cannot rely solely on their memory to answer this question. Now consider these choices:

(a) *Paris*;

(b) *Sydney*;

(c) *Wellington*;

(d) *Bujumbura*.

You probably chose the correct answer (d), not because you had a memory for Burundi's capital, but because you used a process of elimination to choose that answer. Similarly, a lineup is sometimes constructed so that witnesses do not need to rely on their memory for the offender; instead, they use a process of elimination – the suspect becomes the Bujumbura of the lineup.

Lineup bias

The danger arises when the wrong person is suspected of a crime and then included in a biased lineup. Research shows that witnesses will often choose from a lineup, even when the actual offender is not present. If the lineup has been constructed in a biased way (like the multiple choice question above), witnesses are even more likely to choose

from the lineup. It is misidentifications like these that often lead to wrongful convictions.

Taken together, this research shows that witnesses' memories are susceptible to several sources of error. As such, we need to ensure that we collect and test witnesses' memories with scientifically valid interview and lineup techniques. Scientific recommendations regarding best practice procedures for witness evidence have been available for several decades, but few jurisdictions worldwide have taken them up. This lack of recognition for scientific validation is surprising given the relatively fast uptake of forensic science methods, such as DNA testing.

As a result, the best way to think of witness memory evidence is like biological evidence at a crime scene. If we were unlucky enough to stumble across a bloody crime scene, most people would be careful not to contaminate the scene by trampling through the blood spatter patterns, or handling any evidence. Similarly, we should treat witness memory with the same caution. When a witness has been exposed to a crime, we should not contaminate their memories with suggestive questioning and biased lineups. Instead, we should collect and preserve their memories with scenically valid techniques. Only then can we hope to reduce the increasing number of wrongful convictions caused by erroneous witness evidence.

Matthew Gerrie received his PhD in Psychology in 2007 from Victoria University for examining false memories for events. He is now a research fellow in the School of Psychology at Victoria, and manager of the Innocence Project New Zealand. Innocence Projects have been established worldwide to investigate possible cases of wrongful conviction. In 2008, Matthew was awarded a Marsden Grant to study how eyewitnesses choose faces from lineups. In 2009, he won the 'Science in Our Society' category of the MacDiarmid Young Scientists of the Year Awards for his work on eyewitness identifications.

'Truth is the daughter of time, and not of authority': Aspects of the Cartwright Affair

Martin Wallace

The 'Unfortunate Experiment' at National Women's Hospital has entered the national folklore as a notorious case of medical misconduct. But there is still disagreement about what actually happened.

IT IS 22 years since the Cartwright Inquiry published its findings. Arguments about the whole affair persist, with repeated public support from those who say it was a valuable and proper exposure of damaging improprieties by the medical profession, and from those who say that the inquiry and the events which led to it are based on an erroneous interpretation of a scientific paper, and selective evidence gathering at the Inquiry.

If indeed an error has been made, then the vilification of the medical people involved, which has occurred and which still goes on, must be redressed.

I want to consider two aspects of this affair, and if the evidence shows a miscarriage of justice, to offer reasons as to why this might have happened.

I shall:

- consider the contention that an unethical experiment was performed at National Women's Hospital (NWH) by Professor Green and his associates, and whether or not the Inquiry made a fair and just assessment of the current (1988) internationally accepted management of carcinoma-in-situ of the cervix (CIN3);

- discuss what factors in our scientific literary world might be contributing to error.

- describe unwelcome aspects of our human behaviour which allow an issue of this magnitude to survive in our society, unresolved for 22 years, and how writers have described these for many centuries. I have chosen as my title a quotation from Aulus Gellius in his *Attic Nights*, written in c.150 CE to emphasise the long-standing nature of the problem.

It is important to have a clear outline of the sequence of events over time at NWH and here is a timeline for reference:

1966: Green proposed to the NWH Medical Committee that CIN3 should be managed by cone biopsy if indicated and regular review. This was in response to considerable doubt worldwide about the natural history of the condition, for which many advocated hysterectomy. The committee agreed.

1973: Editorial in the *British Medical Journal*, "Uncertainties of Cervical Cytology."[1]

1974: Article in *New Zealand Medical Journal* (*NZMJ*) by Green showing evidence that "The proportion progressing to invasion must be small."[2]

1975: The NWH Medical Committee reviewed the management protocol and agreed it should continue.

1982: Professor Green retired.

1984: "The Invasive Potential of Carcinoma-in-situ of the cervix" was published.[3] This was the paper on which Sandra Coney and Phillida Bunkle based their *Metro* article.

1985: A letter to the *NZMJ* by Skrabanek and Jamieson was critical of a national cervical screening programme for CIN3 as a detection and treatment method for carcinoma of the cervix (14 August).

1986: A letter from David Skegg was published in the *NZMJ* supporting a cervical screening programme. "The case for the effectiveness of screening does not rest on the unfortunate experiment at NWH in which women with abnormal smears were treated conservatively and a proportion have developed invasive cancer" (22 January).

1987: "An Unfortunate Experiment at National Women's" appeared in the June issue of an Auckland magazine, *Metro*. Within 10 days the Minister of Health (Michael Bassett) has announced the inquiry, and that it was to be chaired by Sylvia Cartwright.

1987/1988: The inquiry sat, and published its report in 1988.

1988: A book, *An Unfortunate Experiment*, by Sandra Coney was published.

1990: Jan Corbett, a journalist, wrote an article in the July issue of *Metro* reviewing the errors in the Coney and Bunkle paper, and the way in which the data in the 1984 paper had been distorted.

2008: A conference was held to commemorate the Cartwright Inquiry. A number of papers including Charlotte Paul (a medical adviser to the inquiry), and Sandra Coney, were presented endorsing the inquiry findings.

2009: A book, *A History of the 'Unfortunate Experiment' at National Women's Hospital*, by Linda Bryder, a professional historian, was published.

2009: A book, *The Cartwright Papers*, published by participants in the 2008 conference, and now including a vehement criticism of Linda Bryder and of her book.

2010: The *NZMJ* publishes a letter from Dr Helen Overton, "In defence of Linda Bryder's Book."[4]

The 1984 paper

"The Invasive Potential of Carcinoma-in-situ of the Cervix" was written by two gynaecologists from NWH (McIndoe and Jones), a pathologist from NWH (McLean) and a statistician (Mullins).

I have read this carefully, and made a summary of its contents. It described the follow-up data for 948 women with carcinoma-in-situ of the cervix. The women were followed for five-28 years by repeated smears and observation according to the 1966 proposal, unless they showed evidence for spreading cancer. The women were seen at three, six, and 12 months after presentation, and yearly after that. The women's records showed that at 24 months after presentation, 131 continued to have an abnormal smear. (Of course, the other 817 had normal smears, or had had removal of the cervix by hysterectomy or other treatment.) There was no difference in age or parity between those in either group.

The division into the two groups was made retrospectively by the authors on the evidence for the presence or absence of an abnormal smear at 24 months.

They compared the outcomes in the two groups in terms of the development of invasive cancer (22.1 percent in the group with positive smears at 24 months, 1.5 percent in the larger group). They also compared the number of deaths in each group at the end of the observation period (June 1983). Four women who had had normal smears at 24 months had died (0.5 percent) and eight women had died who had had abnormal smears at 24 months (6 percent).

Treatment

There was no withholding of treatment in that group with the persistently abnormal smears – see Table 1.

It is clear that in this report of the management of CIS there is no evidence of withholding of treatment, nor of an experiment.

Three years after this paper was published, it was used by Sandra Coney and Phillida Bunkle as evidence for gross wrongdoing by the medical staff at NWH. Here is what they wrote:

> "The study divided the women into two groups – 817 who had normal smears after treatment by conventional techniques, and a second group of 131 women who continued to produce persistently abnormal smears. This group is called in the study the conservative treatment group. Some had only biopsies to establish the presence of disease and no further treatment."

Later in the article the authors refer to "group two women who had little or no treatment".

	Initial Treatment		Eventual Treatment	
	Total hysterectomy	Cone biopsy or amputation	Total hysterectomy	Cone biopsy or amputation
Group 1 (n=817)	217 (26.6%)	576 (70.9%)		
Group 2 (n=131)	33 (25.2%)	88 (67.2%)	62 (47.3%)	166 (126.7%)

Table 1. Initial and eventual treatment of patients with normal smears, or who had cervixes removed by hysterectomy or other treatment (Group 1), and of patients with persistent abnormal smears (Group 2). Percentages exceeding 100 percent reflect the need for two cervical procedures in some women.

The authors said in the paper's discussion, "the almost universal acceptance of the malign potential of this lesion has made prospective investigation into the natural progression of CIS ethically impossible". That would require an experiment where women had no treatment. This is quite clearly not the case in this reported series.

This paper in a popular magazine was used by the Cartwright Inquiry as some of the evidence which led to its conclusions.

In 1990, Liggins said, "The famous 1984 article which emanated from the National Women's Hospital and on which the *Metro* article which stimulated the cervical cancer inquiry was based, was misinterpreted by the authors of the *Metro* article and by the judge".[5]

Was the management of cervical carcinoma-in-situ unethical?

This is the second aspect of the Cartwright affair that I wish to examine. In June 2010 the statement was made that "treatment with curative intent was withheld in an unethical study" at NWH from 1965 to 1974.[6]

It is important to make clear what we understand by 'ethical', 'unethical' and 'conventional', or we shall be reduced to the state of the Looking-Glass world: "'When I use a word,' Humpty Dumpty said in a rather scornful tone, 'it means just what I choose it to mean – neither more nor less.'"[7]

Ethical: "In accordance with principles of conduct that are considered correct, especially those of a given profession or group". (Collins Concise Dictionary, 1988.)

Unethical: Not in accordance with these principles.

Conventional: Relating to convention or general agreement. (OED)

Convention is a general agreement or consent. (OED)

Was the protocol for the management of CIN3 by Prof Green and his colleagues at NWH an unethical experiment? If he had proposed to divide the women as they presented into two groups, one of which was treated and the other not, then that would have been unethical. Although uncertainty existed as to what

proportion of women with an abnormal cervical smear developed an invasive cancer, it was agreed that an abnormal smear meant that the woman was more likely to develop cancer than if she had a normal smear.

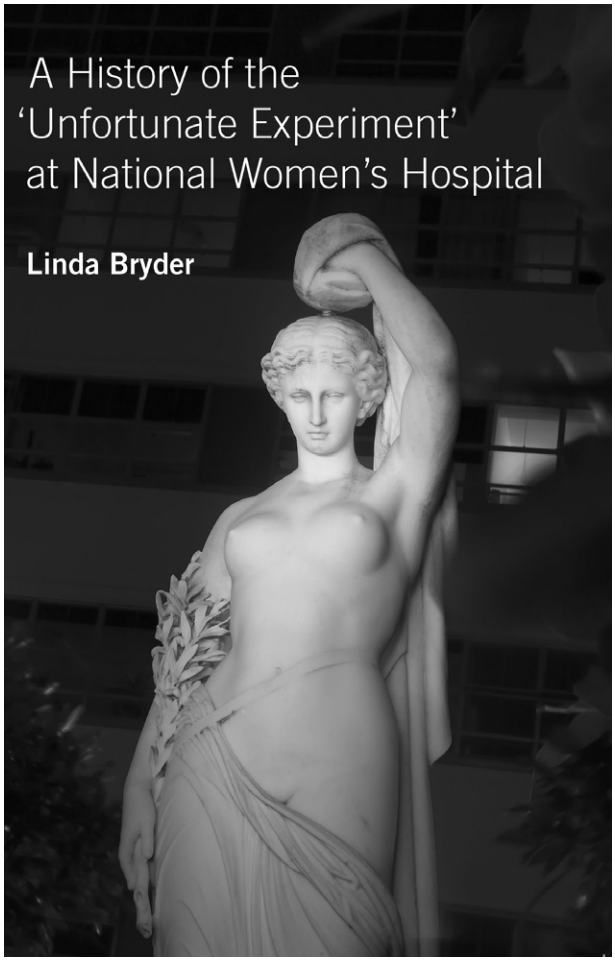
His protocol did not deny women treatment.

There was widespread international uncertainty as to the best form of management. If Prof Green had withheld an acknowledged proven treatment that was agreed to by the majority of workers in the field, and replaced it with an unproven treatment, then that would indeed have been unethical.

He didn't do that.

During 1966-1984 there was no international agreed conventional treatment for this condition. As Iain Chalmers of the James Lind Library in Oxford points out, [8] Linda Bryder in her book has made a thorough review of the contemporary medical literature on this subject which makes it clear that there was no worldwide, generally accepted treatment of CIN3. The evidence called by the Cartwright Inquiry did not reflect the lack of an international consensus. It was indicative of only one aspect of the issue. It has all the attributes of 'cherry-picking'.

The accusation that Green and his colleagues behaved unethically in these matters is not sustainable. Unless his detractors can show that there was a single international conventional treatment which he ignored, then repeated accusations of "unethical behaviour" are wrong. These accusations continue to be made, as recently as 1 June, 2010.[6]



The 'Unfortunate Experiment' at National Women's continues to make waves. Linda Bryder has recently written an in-depth review of the case.

Why do manifestly false beliefs persist over time?

There are features of our human behaviour which are conducive to the persistence of untruths, and they include a desire for uniformity in the interest of the maintenance of a coherent and more easily managed society.

Once a decision has been made, it is easier for all of us to go along with it, and not to 'rock the boat'.

There have been trenchant criticisms of the Cartwright affair and its outcomes, often met with strident objections and not much logic. To accuse the whistle blower of "intransigence and arrogance" rather than meet the questions fairly is shameful.

Another feature of the last 22 years is the increasing number of papers published in the medical literature which on close examination are of poor quality. An example of this is the paper published on 1 June, 2010.

This was published as an abstract online. The authors include a medical adviser to the Cartwright Inquiry, a medical witness at the inquiry, and one of the authors of the 1984 paper. There is the old accusation that "treatment with curative intent was withheld in an unethical clinical study of the natural history of CIS at NWH in the years 1965-1974." But in the results it is stated that 51 percent of these women had treatment with curative intent! The group treated with the diagnosis made in 1975-1976 had curative intent treatment in 85 percent. Prof Green retired in 1982; his proposal for the management of carcinoma in situ was approved in 1966.

Treatment with curative intent was not defined in the abstract.

The results include P values of 0.0005 for the significance of differences between groups, for

a difference which defines the grouping.

The number of new patients in the year 1975-1976 was half that in each of the two previous decades. There is no explanation for this in the abstract. This group was not included in the comparison of risk for cancer of the cervix or vaginal vault. There is no explanation for this.

The medical science literature shares with all scientific paper publishing a current deterioration in standards. This contributes to the persistence of error. This issue has been recently addressed in an editorial in *The European Journal of Clinical Investigation*.[9]

> "Why would scientists publish junk? Apparently the current system does not penalise its publication. Conversely, it rewards productivity.
>
> Nowadays, some authors have been co-authoring more than 100 papers annually. Some of these researchers only published three or four papers per year until their mid-forties and fifties. Then suddenly they developed this agonising writing incontinence."

Another factor in our society which feeds our appetite for orthodoxy is the popular press. Truth is often submerged in the sensational. An example of this occurred in the *NZ Herald* on 1 June, when their health reporter wrote a report of the on-line article[6] with the headline:

> "Otago research backs cancer inquiry findings: Unfortunate experiment at National Women's not imagined, says report"

There followed 40 column centimetres supporting the headline, including two which stated: "The cancer death rate differences between the periods and sub-groups are not significantly different". This information is not included in the on-line published paper. The reporter's statement is not correct in his summary of the report. In addition he cites information which suggests he has access to the complete (as yet unpublished on June 1st) paper.

The television 'press' included that morning an interview with Charlotte Paul, one of the authors, and that evening, an interview with Clare Matheson, the woman named as 'Ruth' in the original *Metro* article. There was no reference to the valid criticisms of the Cartwright affair which have been made over the years.

It is not my case that the medical profession to which I belong is without fault, and I accept that since 1988 more attention has been paid by doctors to issues such as informed consent. But the means, by this miscarriage of justice, do not justify the ends.

Our human desire not to alter our beliefs in the face of contrary evidence, the willingness of the popular press not to disturb established 'truth', the current deterioration in the standards of the world medical press, and an unquestioning respect for 'authority' are factors recognisably active in the persistence of the myths surrounding the Cartwright affair.

These behaviours are not new, and their effects on the emergence of truth have been recognised for centuries.

Francis Bacon (1561-1626) in his *Axioms* wrote, in number 46:

> "The human understanding when it has once adopted an opinion (either as being the received opinion, or as being agreeable to itself) draws all things else to support and agree with it. And though here be a greater number and weight of instances to be found on the other side, yet these it either neglects and despises, or else by some distinction sets aside and rejects; in order that by this great and pernicious predetermination the authority of its former conclusions may remain inviolate."

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Martin Wallace is a retired physician who is resuming his education in literature, natural history, and in trying to understand human behaviour.

Supernatural forces on the increase

Compiled by Annette Taylor

SPIRITS are increasingly making their presence felt in New Zealand, spurred on by celebrity ghost whisperers, says the Manawatu Standard (12 April).

A recent survey by Massey University revealed that the proportion of respondents who say they have felt a spiritual force rose from 33 percent in 1991, to 40 percent. Half the respondents said they are interested in spiritual forces, while a quarter believed the dead had supernatural powers.

Massey University senior lecturer Heather Kavan said the entertainment industry has fuelled the spirit market.

"Programmes like *Sensing Murder* and *Ghost Whisperer* have popularised psychic experiences that in previous times would have been dismissed as symptoms of psychosis. The *Sensing Murder* psychics have almost become spiritual celebrities."

Our own Vicki Hyde said spiritual crazes come in waves, depending on media programmes. Angels and vampires are the latest fads. She warned of the "morally reprehensible" behaviour of shows such as *Sensing Murder*. Psychic shows exploit vulnerable families who have lost loved ones in the name of entertainment, she said.

If the clippings for Newsfront are anything to go by, there are indeed more ghostly appearances going on out there. There's definitely a ghost theme this issue.

The daily bread rises despite ghostly visit

Things are going bump, shadows are creeping and mysterious voices are bothering Maurice Piner at Phil's Baker, in Greymouth. The Press (5 May) says the poor baker is seeing shadows moving around and hearing banging and crashing when he's working alone.

"…sometimes you can hear whispering and talking in the bakery. You look around to see if there's anyone there, and you can't."

Tourist operator Paul Schramm thinks he knows what's what. While researching a new tourist attraction, he has learned about Ah Shing, a Chinese miner, who hanged himself in 1891 in the boarding house that used to stand on the site.

Piner said it was interesting to have a theory to explain the whispers and shadows, but it would not put him off working alone.

Hotel ghost to be checked out

Christchurch's old Jailhouse hotel has a ghostly infestation but the ghosthunters are on to it (The Press, 6 May 2010.)

Ghost Hunters Christchurch lead investigator Anton Heyrick has offered to check out the ghostly reports of an apparition in the kitchen and of a man with a white jacket, but wants three extra paranormal investigators to help.

"There have been things moving. There have been voices, and backpackers have said they've felt like they were being watched."

Reminds me of stopping at an old hotel, turned into a backpackers, on the way to last year's Skeptics Conference. On the walls was a sepia picture of the daughter of a former hotel owner, who died tragically and now haunts the place. When we commented on this to the manager, he said to the best of his knowledge there wasn't a ghost; it was something the previous owners did to add to the feel of the place. Yet, later that night, the door to the shower block mysteriously slammed shut, with no one near. Coincidence? We think so.

Return of the cat ghost

Hawera's ghost cat, caught on security camera last year, is not alone (Taranaki Daily News, 2 June).

Ross and Donna Sowerby hoped to catch a bike thief, and instead caught a ghostly image. To this viewer, it looked like a small spider or booklouse wandering over the lens but to some, it looked more like a big, fluffy, but very blurry cat.

The media loved it, and it was on TV and reported in many

newspapers. But paranormal experts fell silent, and for months, says Mrs Sowerby, there was no definitive answer. Until television psychic Sue Nicholson appeared on TV One's *Good Morning* show and offered an explanation, following a letter from Mrs Sowerby. She said the apparition was of a ginger cat and added that there were more ghosts in the couple's house.

Luckily, one of these spirits, a man, is a friendly ghost, with a "lovely energy". The best thing about the cat ghost, she said, was that it didn't need to be fed. Mrs Sowerby was happy with the explanation. "We have closure now and we can move on."

The article ran on the Stuff website and attracted about 80 comments. Many agreed it looked like a bug on the lens. But the Sowerbys were not satisfied with these theories. Why look for zebras when you can manifest a phantom feline?

But back to the Manawatu Standard. The article on Massey University's survey also answers a long-standing mystery. "An extraordinarily high proportion of New Zealanders have no religion – almost double the proportion in other Western countries – but we've never known who these people are," Dr Kavan said.

The survey showed many of them are privately spiritual, but don't relate to organised religions. And the internet has opened up a huge range of possibilities, for believers and non-believers alike.

The Facebook group *Sensing Murder* has almost 4000 fans,whereas *Sensing Bullshit* has 95 members. Sigh.

Recovered memories again

Although the recovered memory panic seems to be on the wane, a recent case of a couple acquitted on all charges of rape and inducing their daughter to do indecent acts, shows the idea still has its supporters.

In an NZPA story (9 June) the man's lawyer, Chris Wilkinson-Smith said the case had been pursued by West Auckland police, despite Gisborne police recommending the prosecution should not proceed.

The couple, who have name suppression, live in a small town near Gisborne. "It was only the efforts of private investigator Michael Rhodes who was able to locate many witnesses who completely contradicted the complainant's evidence. A more thorough police investigation could have avoided three years of misery."

The mother's lawyer, Adam Simperingham, told reporters the charges should never have been laid, and that the parents had been through a very traumatic experience.

The charges related to alleged incidents between January 23 1978 and January 23 1981.

Their daughter, now 39, gave evidence during the trial. The Crown prosecutor, Soana Moala, alleged a series of sexual assaults occurred at the family home when the girl was aged between seven and 10.

Ms Moala told the jury that the complainant did not tell anyone at the time. She did not remember the incidents until 2006.

'Witch children' in living hell

And from the We Think We've Got It Bad Here Department comes a story in the Waikato Times (15 May) on the 'Witch Children' of Nigeria.

A Salem-style witch-hunt has swept the south of the West African nation in recent years. Though the area has always been a centre for the occult and voodoo, in the last 10 years pastors from revivalist churches have been arriving there. They accuse vulnerable children (many of them Aids orphans) of being witches, and then offer to drive out the demons. With growing populations and mounting poverty, some aunts and uncles have been quick to accept any excuse not to feed another mouth.

Seven-year-old Godwin Okon was accused, with his grandmother, of causing his mother's death by witchcraft. Sam Ikpe-Itauma of the Child Rights and Rehabilitation Network (CRARN), said Godwin's uncle had locked them in a room with the dead woman. The grandmother escaped, but Godwin was ordered by a pastor to eat his mother's corpse, under the belief that if a demon eats its victim it will also die. When he refused his uncle forced his head into his mother's body. When he still refused to eat he was beaten and burnt.

Passers-by kept him alive by feeding him through cracks in the wall, until other villagers notified the police, who took him to CRARN. He is slowly recovering along with more than 200 other children with similar experiences.

The great continental demolition derby

David Riddell

When creationists try to harmonise their worldview with certain inescapable facts of geology, the result is chaos.

RECENTLY I had forwarded to me a document bearing the title *Debunking Evolution: problems, errors, and lies exposed, in plain language for non-scientists*.

The content was depressingly familiar, and can largely be guessed from the title, although the way it crams in so many technical, sciencey-sounding terms into its almost 15,000 words rather works against its claim to be "plain language". The author is given as one John Michael Fischer; despite this tract being widely disseminated across the internet (often copied and pasted into forum discussion threads) I have not been able to find any information on him or his background.

A full rebuttal of all this material would be even longer than the original; there's certainly not enough space for it in this publication. In any case, most of it is standard creationist fare that's been refuted over and over again – no macroevolution (only microevolution), irreducible complexity, the tornado in a junkyard (or a minor variant), no fossil ancestors for Cambrian species, no transitional fossils, the demise of the Tree of Life (as reported in a *New Scientist* cover story), Ernst Haeckel's embryo drawings, lack of true vestigial organs, and how the Second Law of Thermodynamics precludes evolution.

Only a couple of arguments are comparatively new. Fischer gets very excited about recent findings that "increasing biological complexity is correlated with an increasing number of non-protein-coding DNA sequences and not, as previously assumed, with an increasing number of protein-coding genes." Cells contain many short sequences of RNA which don't code for functional proteins but play a variety of roles in regulating cellular processes and protein synthesis. He concludes from this that the 'junk' DNA which makes up most of the genome isn't really junk after all, but must have been inserted by a Designer to fulfill essential biological functions.

Developmental biologist and blogger PZ Myers disagrees, and as usual is not shy about saying why (**scienceblogs.com/pharyngula/2010/05/junk_dna_is_still_junk.php**). Most of the RNA transcripts are from regions of DNA near known genes, suggesting that they're artefacts, like an extended transcription of a gene. Occasionally one of them may be co-opted for a new function, but there's no indication of design; the genome is still mostly dead in transcription terms. "Don't look for demolition of the concept of junk DNA here," Myers says.

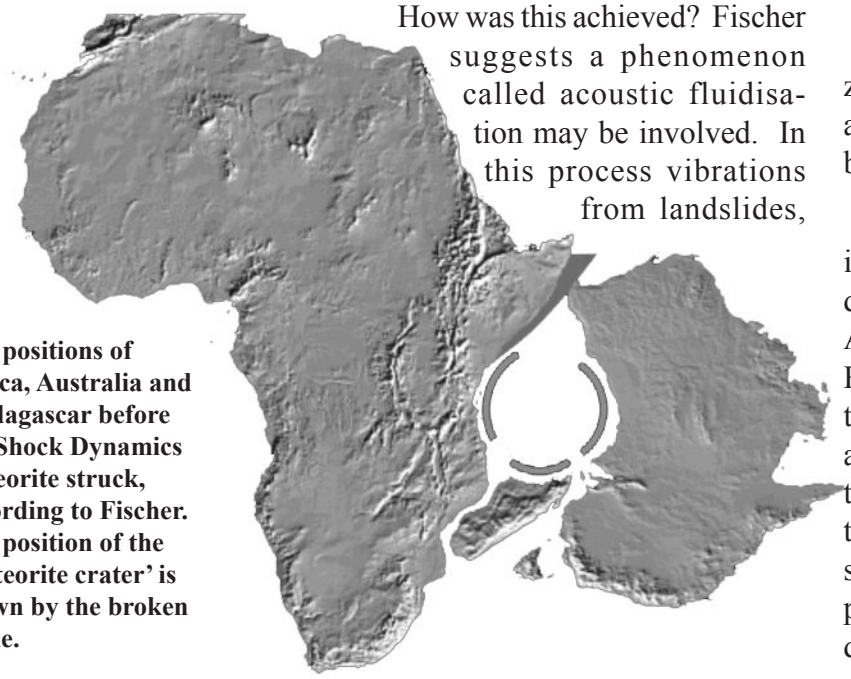
This is all very well, but once Fischer has single-handedly demolished evolutionary theory, what would he replace it with? The answer is on his website (**www.newgeology.us**), which is the ultimate source for *Debunking Evolution*. Navigating around the site is a bit of a challenge, but it's clear his real passion is for geology, rather than biology, though he shows no greater aptitude for that discipline.

The home page bears the title 'Shock Dynamics', which Fischer describes as "[a] new geology theory featuring impact-powered rapid continental drift as an alternative to plate tectonics. The key to creation geology." What he is proposing is that in the few thousand years of the Earth's history allowed by the creationists' timescale, our planet has been subjected to three major meteoritic events, one involving multiple impacts. The most recent of these was "in the time of Peleg" (Gen. 10:25),

in whose days, the Bible tells us, "the Earth was divided". An enormous meteorite, Fischer says, struck the Earth just north of what is now Madagascar, driving the initially joined continents to their present locations in a matter of hours.

According to Bishop Ussher's chronology, Peleg was born in 2247 BC, 101 years after the Flood, and lived 339 years. To put this in perspective, the Pyramid of Djoser in Egypt was built between 2630 and 2611 BC.

Continental Drift is a big issue for creationists. If all land animals are really descended from a single boatload that landed on a mountaintop in eastern Turkey, then explaining how they all got to their current locations takes some doing. How did kiwi and moa get to New Zealand? Or lemurs to Madagascar, or sloths to the Amazon? The problem looks slightly less insuperable if, at the time of the Flood, all the world's land masses were joined. The 1000-plus land-snail species found only in New Zealand could then simply have crawled here, being careful not to leave any relatives along the way. Several creationists have therefore tried to come up with scenarios in which rapid, post-Flood continental movement may have occurred.



The positions of Africa, Australia and Madagascar before the Shock Dynamics meteorite struck, according to Fischer. The position of the 'meteorite crater' is shown by the broken circle.

Fischer argues the energy of an incoming meteorite triggered the continents to slide up to 9000km (in the case of Australia) over a period of 26 hours. Yes, that's right. Australia must have averaged a speed of almost 350 km/hr; given that accelerating and decelerating a continental landmass must take a while, the maximum velocity must have been considerably greater. How was this achieved? Fischer suggests a phenomenon called acoustic fluidisation may be involved. In this process vibrations from landslides, earthquakes or meteorite impacts "fluidise" loose debris so that it flows like a liquid. It's a real phenomenon, and has been used to explain the effects of some earthquakes, or the long distances landslides sometimes flow across plains from their points of origin. Here then is Fischer's scenario:

> "The giant meteorite explodes, penetrating the continental crust. The force pushes up low mountains, and the landmass slides away like a ship on water, fluidizing the contact layer. Behind the landmass, a surface layer of oceanic crust is melting and cooling to form the mid-ocean spreading ridge with transform faults, pulled open by the landmass.
>
> "When the leading edge loses enough energy, the contact layer at the leading edge solidifies. The momentum of the landmass carries it forward like a car hitting a wall, piling up high mountains. The formerly fluidized contact layer in front is a Benioff zone, called subduction zones in Plate Tectonics."

Strictly speaking a Benioff zone is a deep, active seismic area within a subduction zone, but we know what he means.

One thing he doesn't explain is why other meteorite impacts didn't produce the same effect. And this is a problem, because Fischer invokes *lots* of big meteorites. The Flood was brought about by a whole swarm of meteorite strikes. As these struck the ocean they raised enormous splashes, which Noah interpreted as "the fountains of the deep" (Fischer differs from other creationists in asserting that the Flood story is an eyewitness account written by Noah, rather than divinely authored). They also unleashed the enormous volcanic event of the Siberian Traps (generally regarded as 250 million years old) and collapsed the waters above the heavens referred to in the first chapter of Genesis (Fischer calls the waters a "vapor canopy"), the ultimate cause of the Flood. This is an

interesting one, because according to Psalm 148, those waters are still there:

> "Praise him, ye heavens of heavens, and ye waters that *be* above the heavens.
>
> "Let them praise the name of the LORD: for he commanded and they were created.
>
> "He hath also stablished them for ever and ever: he hath made a decree which shall not pass." (*KJV*)

So we have the ultimate irony: in order to uphold the literal truth of one part of the Bible, Fischer piles absurdity on absurdity, and in the end only succeeds in contradicting another part. (The vapour canopy, by the way, is pretty much standard creationist doctrine these days; few creationists ever seem to read anything in their Bibles beyond Genesis.)

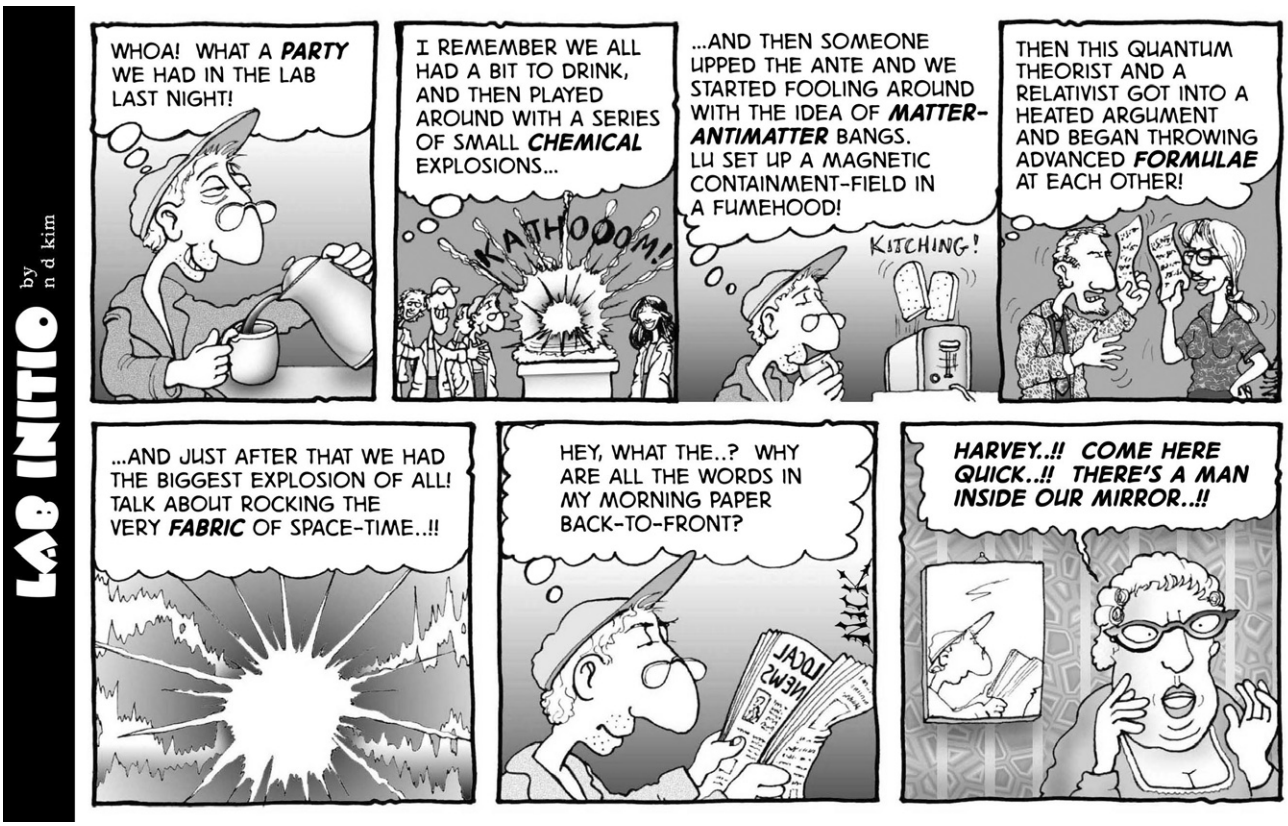
But Fischer doesn't stop there. The Flood kills off the dinosaurs, which are on a different landmass – people only live on Mesopotamia, or possibly East Antarctica, where dinosaur remains have not been found. I'm not sure how the landmasses can be undivided and yet there are two of them. Successive waves of ocean water deposit massive amounts of sediment, forming the geological column and fossil record. After the Flood the Chicxulub meteorite (generally credited with the demise of the dinosaurs) hits the Earth, but doesn't seem to do much except spread around some iridium and shocked quartz.

The Flood survivors spread and multiply for several hundred years. Then the Shock Dynamics meteorite scatters the continents, raises all the mountain chains (the landmasses used to be low-lying; the Flood story describes how the tops of the mountains could be seen as the waters receded, but I think we can assume they were only *little* mountains) and wipes out many large mammal species. The force of the impact is enough to speed up the Earth's rotation, so that the number of days in a year increases from 360 to 365.2. All those sliding continents heat the oceans, which causes massive evaporation, which in turn causes cooling, bringing on the Ice Ages. You'd think the Chinese, the Egyptians, and the other civilisations of the time would have noticed.

Other scenarios

The internet (and creationist literature) is awash with material like this. Shock Dynamics theory is not merely the work of a lone crackpot, but a fairly representative example of a mode of thought that remains very widespread. Fischer is not the only one pushing a literal division of the Earth in the time of Peleg, although other creationists have come up with different mechanisms.

The Associates for Spiritual Knowledge, for example (**www.**



askelm.com/news/n090219.pdf) favour an expanding Earth pushing the continents apart. The Associates for Biblical Research (**www.biblearchaeology.org/post/2006/05/of-peleg-and-pangaea.aspx**) don't propose a mechanism at all, merely suggesting the continents drifted apart during Peleg's lifetime.

Other creationists disagree. These include the most active group locally, Creation Ministries International (CMI), who maintain the division in Peleg's time was purely a cultural one. They say the continents were separated at the time of the Flood (**creation.com/in-pelegs-days-the-earth-was-divided**), and the animals later migrated via land bridges during the post-Flood Ice Age, or were moved around by people. This, they argue, avoids the problem of another (post-Flood) catastrophe that would accompany such a division, and destroy most land life. Those sloths dragged themselves across Siberia and over a Bering Strait land bridge to get to the Amazon, apparently. Or maybe the first Americans took them along as pets, packing plenty of *Cecropia* leaves to feed them on the journey.

One way rapid continental drift may have been triggered at the time of the Flood is set out in something called Hydroplate Theory, the brainchild of one Dr Walt Brown, who explains all in his book *In the Beginning*. This states that before the Flood there was a massive amount of water underneath the crust. Pressure on the water caused the plates to break and separate; the escaping water then flooded the whole earth, and the continental plates flew apart at speeds of up to 72 km/hr (**creationwiki.org/Hydroplate**).

Others believe the Earth is hollow (**www.ourhollowearth.com**). Rodney M Cluff, author of *World Top Secret: Our Earth Is Hollow!* claims:

> "Located at 87.7 degrees North and South Latitude are Polar Openings that lead into the hollow interior of our planet where the Lost Ten Tribes of Israel today dwell in perfect harmony, with life spans equal to those of the Methuselahs of the Bible, whose only desire is to live in peace. Their flying saucers in defense of their country at times are seen on our surface world. They don't come to destroy, they are waiting... Waiting for us to discover that world peace is the only answer, not without God, but WITH Him." [ellipsis and emphasis in original]

Then there are the geocentrists. A 1999 Gallup poll found 18 percent of Americans, when asked whether the Earth revolved around the sun or the sun around the Earth, picked the latter, while another three percent had no opinion. Poll results in Britain and Germany are similar. Probably for most of these people it's just not a question they've given much thought to, but the Association for Biblical Astronomy (**www.geocentricity.com**) have devoted a lot of time and effort to it. In their view, whenever the Bible and astronomy are at variance, it is always astronomy "– that is, our 'reading' of the 'Book of Nature,' not our reading of the Holy Bible – that is wrong." Key passages in the Bible indicate the Earth is motionless at the centre of the universe and that's the end of it; the Earth neither rotates daily nor revolves around the sun. The geocentrists regard more liberal groups, such as the Institute for Creation Research, CMI and Answers in Genesis, as accommodationists.

Though they may disagree vehemently among themselves, all these groups are united by their belief in the inerrancy of the Bible. What's more, they insist that only faith in the infallibility of scripture can provide the philosophical underpinnings that allow a person to avoid straying into error. CMI's Jonathan Sarfati, for example, writes:

> "[W]e are not merely asking opponents to consider biblical presuppositions as an alternative way of looking at the evidence. Nor are we merely saying that they are 'nicer', nor even that they provide a superior framework that better explains the data (although both of these are true as well). Rather, the claim is even stronger: that the biblical framework is the *only* one that provides the foundation for science, voluntary will, logic and morality."

This just doesn't wash. The clearest sign that "biblical presuppositions" are no foundation for science and logic is the plethora of nonsensical scenarios that creationists have concocted in their attempts to harmonise the evidence of geology with their preconceived notions of a Flood, a six-day creation and a 6000-year-old Earth. Science, which allows the freedom to adapt our views on the Earth's history in the light of fresh information, remains the best philosophical framework for investigating the world around us. 'Creation science' is no alternative.

Good guide to bad science

Bad Science, by Ben Goldacre. ISBN 978-0-00-728487-0. Fourth Estate, London. $26.99.
Reviewed by **Feike de Bock**.

For those who have not yet heard of Ben Goldacre, his latest book *Bad Science* is an excellent introduction to his work. Goldacre is an award-winning writer, broadcaster and medical doctor who specialises in exposing false scientific claims made by scaremongering journalists, government reports, pharmaceutical corporations, PR companies and, of course, quacks. The book follows on from his well-known weekly column in the Guardian, also called Bad Science, which he has been writing since 2003 (**www.badscience.net**).

In this book he once again exposes the foolishness of quacks, poor scientific analysis and abuse of statistics, and the misinterpretation by the media of otherwise sounds medical publications. Goldacre is a master in the use of statistics and explains in simple terms the psychology behind the ability of pharmaceutical corporations to trumpet claims of success and manipulate the public with false but seemingly authoritative publications.

One particular highlight is his in-depth look at the absurdities of claims made by certain nutritionists. He launches a scathing attack on the many who still peddle their own dietary supplements and products without any peer-reviewed science to back up their claims. In particular he highlights the almost criminal activities of some nutritionists in promoting food supplements which research has shown to have no beneficial effect at all.

The most frightening example is Patrick Holford, the founder of the Institute for Optimum Nutrition, who convinced the government of South Africa that Vitamin C is more effective than the Aids drug AZT, with disastrous consequences in increasing mortality within the Aids community. Other nutritionists like Matthias Rath and Dr Gillian McKeith do not escape Goldacre's critical and analytical pen, as he exposes their scandalous efforts to enrich themselves at the expense of the wider population. The usual subjects of homeopathy, antioxidant madness, brain gym and Omega-3 oils also receive healthy scrutiny.

It is even more alarming to read of the self-proclaimed health gurus who have penetrated institutes of tertiary education. In doing so, they are able to cloud the minds of young students with information that common sense would otherwise dictate as nonsense. Finally, Goldacre is extremely critical about sloppy journalistic practice, particularly the use of persuasive headlines and misinterpreted statistics to distort otherwise good science. In doing so, he highlights that, as is often the case, the driving force behind all the misleading information is money. One of the book's last chapters is devoted to the journalistic scaremongering and the resulting avalanche of nonsense which caused so much harm to the MMR vaccination programme.

The book is amusing, witty, enlightening and instructive. But simultaneously it demonstrates the inability of many people to distinguish between good and bad science. This book is a must-read for every student, journalist, pharmacist, school teacher, and anyone involved in health or science. It would particularly be of great benefit to a number of breakfast TV presenters!

The Times summarises it well:

> "... unmissable, laying about himself in a froth of entirely justified indignation, Goldacre slams the mountebanks and bullshitters who misuse science. Few escape: drug companies, self-styled nutritionists, deluded researchers and journalists all get thoroughly duffed up."

In my humble opinion Ben Goldacre is the James Randi of debunking medical nonsense.

Feike de Bock is a semi-retired petroleum geologist with an extensive library on paranormal subjects.

NZSitP: Year Zero

Gold *looks back at the first year of Skeptics in the Pub.*

I HAD been listening to skeptical and science-based podcasts for about four years when I decided that I wanted to do something more than just listen. I'd heard about a lecture series that was held in a pub in London 10 years ago; when the series ended the gatherings kept going.

This was the start of Skeptics in the Pub. Since then the concept has steadily spread around the world. Just over a year ago I decided I'd give it a go here in New Zealand and it appears to have been quite successful. We now have well established groups that meet regularly in Auckland each month and Wellington, Christchurch and Dunedin fortnightly.

In the first year we've had speakers, movie outings, video evenings, public awareness and outreach events and much beer. Christchurch has been particularly active with speakers and a monthly atheist-themed video evening. Dunedin people have also been very active and have attended some great science communication events from the University of Otago.

They've also been to the movies together to watch *Creation*, been filmed for a high school project discussing parody religions, and handed out Psychic Bingo cards to the people paying to listen to someone pretending to talk to dead people.

The website (**skepticsinthepub.net.nz)** has been gathering members steadily and the forums and blogs are in regular use. New features are in the pipeline based on activities from the various groups and feedback from the site members. We should soon have a lending library where members can list the books they have to loan out and track who has them. We should also have a community-driven resources library that will allow members to post and tag links to online information so that when challenged we'll hopefully be a few clicks away from evidence that supports the science.

I would like to thank the speakers we've had: Andy Lea, Gareth Renowden, Kylie Sturgess, Madeleine Hopkins, Matthew Dentith, Max Wallace, Richard Graham and Vicki Hyde.

I would also like to thank the organisers, past and present. While I may have kicked this thing off it would never have lasted without these people: Craig Shearer, James Sullivan, Jim Cheetham, Katie Brockie, Mike Kilpatrick, Nathan Grange, Toby Ricketts and Tom Neal.

Finally, I would like to thank the people that attend the meetups. Without you lot none of this would have been possible. Skeptics in the Pub is a social gathering and I applaud and encourage your participation. While there are organisers at the current groups these are titles given by the **meetup.com** site and these people have stepped forward to volunteer their time. I'm happy to extend this access to anyone that wants it. If there are any locations that don't currently have meetups and there are people that would like them to happen I'm happy to set up a meetup.com group to get you started also.

Feedback and discussion of this article: bit.ly/bb7fxv

forum

Fault is with Creationism

Bernard Beckett (Skeptic 95, p8) says the ability of Creationism to make the same predictions as evolutionary psychology shows that the latter is not a scientific process. But the same is equally true of evolutionary biology. ("God made cats resemble tigers, and apples resemble pears, because He felt like it.") The fault is with Creationism, not evolution. An omnipotent Creator can be used to explain/predict absolutely anything, not only the universe as it is, but any other universe, possible or im-. You might say that Creationism, like Nostradamus and astrology, is very good for predicting the past. That is their fundamental failing.

Billy Joel's daughter (p18) obviously had quite the wrong idea about what an overdose in homeopathy is. If she had sniffed the closed bottle, she would certainly have died as she wished. Homeopathy patients should be warned.

Hugh Young
Pukerua Bay

Milk and health: there aren't always two (equal) sides to a story

While in the gym, ***Alison Campbell*** *considers some health issues.*

I HAD another learning experience down at the gym this afternoon. There I was, happily pedalling away on the exercycle (I believe in varying my cardio, otherwise it gets boring!) and reading a fitness magazine (what else?) when I came across an article on whether or not drinking/eating dairy products is bad for you.

It started out with comments from dietitians to the effect that 'lactose intolerance' tends to be self-diagnosed, which probably over-inflates estimates of the actual prevalence of this problem. (From a biological perspective, it should be less common among those of European and perhaps African descent, something that's related to the repeated 'discovery' of dairy farming around 9000 years ago.)

The article then gave another point of view, with a nutritionist commenting that milk today is quite different from what it would have been like 100 years ago, in the sense that animals are farmed more intensively and with greater use of various pharmaceuticals, which are likely to come through into the human diet. She also noted, in a rather shocked tone, that much of the milk comes from pregnant cows, so it likely has higher levels of oestrogens and other pregnancy-related hormones. The implication was that this could be linked to various cancers in humans.

What was the evidence for this? The article tried to be even-handed, looking at information from both sides (milk causes cancer/doesn't cause cancer). For the 'no cancer link' side it cited a study of around 9000 women, published in a research journal, which found no correlation, let alone causal relationship, between women's dairy intake and the incidence of breast cancer. Because it was the gym, I didn't have pen and paper handy to take down the details, but I'm fairly sure it was a 2002 paper by M-H Shin & colleagues, which concludes:

> "We found no association between intake of dairy products and breast cancer in postmenopausal women. Among premenopausal women, high intake of low-fat dairy foods... was associated with reduced risk of breast cancer."

Searching some more I found papers by Knektl et al (1996) and Parodi (2005), both of which present data supporting the conclusions of Shin et al. Parodi also points out that the amount of hormones taken in via dairy products is extremely small compared to a woman's own endogenous hormone production: about 0.05µg/day from dairy intake against up to 1mg/day in pre-menopausal women and 40 - 200µg/day in post-menopausal women.

On the 'milk is implicated in cancer' side we got a paper in the journal *Medical Hypotheses*. The paper looks at apparent correlations between diet and the incidence of various cancers, including breast cancer, and suggests that hormones in milk may be implicated in cancer. However, correlation is not the same as causation, and while the suggestion that cows' milk contributes to some cancers due to its high hormone titre is an interesting hypothesis, again there is no direct evidence presented in support of this. To counter this argument, as noted by Parodi the hormone contribution from dairy products is insubstantial compared to that produced within the body.

The problem I have with the original magazine article is that it presented both sources as of equal importance and validity. And they're not. The first three papers I've linked to (including the one cited by the article) are from peer-reviewed journals and

they're evidence-based, ie they contain data from fairly large cohorts of patients. *Medical Hypotheses* isn't peer-reviewed and the papers it contains are often published because they offer provocative hypotheses. In this case the hypothesis – based on data on cancer rates and diets, but not examining particular cohorts of patients – is an interesting one but the apparent correlations need to be examined in a lot more depth.Sometimes there really aren't two equal sides to a story.

Alison Campbell is a biology lecturer at Waikato University.

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The coming of the phantom airship

NZ Skeptic 17 *(May 1990) included an item taken from the* NZ Herald*'s '100 Years of News', published in 1963, looking back at the great New Zealand airship panic of 1909. This topic, and its parallels with more recent UFO crazes, was covered in more detail in* NZ Skeptic 47.

Dunedin, July 27, 1909

EXCITEMENT has been created all over the country by a report that a mysterious light has been seen at night near Stirling, moving about in such a manner as to give the impression that something in the nature of an airship must be manoeuvring in the hills.

At noon on Friday the school children beheld in the air a strange machine which they described as shaped like a boat, with what appeared to be the figure of a man seated in it.

Oamaru, July 30

At eight o'clock this morning Mr H. D. Bailey, a farmer of Kauroo Hill, saw what he describes as a shape like a boat with a flat top speeding along at something like 30 miles an hour. After watching it for some time Mr Bailey ran in to obtain his glasses, but by the time he returned the airship had disappeared over the hills.

The airship was also seen by several people at Maheno and its reality cannot therefore be doubted.

Gore, July 31

Two dredge hands engaged in the night shift on the Syndicate No. 2 dredge were accorded a view of the airship at five o'clock this morning at close quarters. They state that the ship came down through the mist and circled round the vicinity, and that two figures were plainly discernible on board.

Wellington, August 6

A Waipawa resident gives a circumstantial, but uncorroborated, account of having seen an airship flying over Kaikoura last week. He says it was grey in colour, torpedo-shaped, and contained three men, one of whom shouted at him in a foreign tongue. The machine appeared to be under perfect control and it carried two bright lights.

Waihi, August 7

Lights were seen hovering over Waihi for two or three hours last night and half the town turned out to catch a glimpse of the "ship" and its aerial navigators. The more imaginative could plainly discern two of its occupants.

This morning a sequel was furnished in the discovery on the Tauranga road of an umbrella-shaped contrivance of tissue paper, which was apparently part of a four-kite parachute, usually described as the "novelty of the season" for garden parties, and sold at the modest figure of sixpence a box.

August 7

A resident of Waharoa sends the following account of a personal experience:–

"I had been out to spend a convivial evening with a friend and on my way home I saw a great airship sailing above me. When it was only two feet over my head I quite plainly saw the German Emperor and heard him discussing the native land question.

"Just at this point his German majesty caught sight of me and very rudely put his mailed thumb on his nose point and extended the other four mailed digits toward me. The ship then quietly sailed away in the direction of Berlin.

"I may say that I found an empty whisky bottle next morning, evidently dropped out of the airship."

If undelivered, return to:

NZ Skeptics
PO Box 29-492
Christchurch 8540

New Zealand Permit No. 3357 Permit

Last call for the conference!

The NZ Skeptics' annual conference is at Butterfly Creek, Mangere, August 13-15.

Come and hear about the end of the world, 1080, memory, mass delusions, immunisation, the 'Unfortunate Experiment', the demonisation of fat, and much more!

And, weather and permits permitting, we'll kick off with a firewalk on Friday evening. Make a date with destiny (or should that be with thermodynamics...)

Register with the form in the previous issue of NZ Skeptic, or online at **skeptics.org.nz/SK:SKEPCONFERENCE**