New Zealand *Skeptic*

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Contents

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Wellington.

THE MILAN BRYCH STORY

Before I go

This is my last newsletter. I am pleased to be handing over the editorship to Denis Dutton. I feel I have been very fortunate in the quality of contributions I have received and to have had regular contributors. A special acknowledgement is due to Mark Davies, Andrew Vignaux and Karen Turner who physically produce the magazine. I had no idea of the amount of work they undertake until I became involved in it myself.
P.A.B

Heady stuff

Even those who find the new look *Skeptical Inquirer* a little tedious will have to admit it is more stylish than the old. Reading the certainly-not-tedious *The Fringes of Reason: A Whole Earth Catalog* edited by Ted Schulz (now available in Wellington at Whitcoulls and Unity Books at $45.00) I was astonished by the similarity between the logo for the Hypno-Rooter featured in the book and the head motif that appears just about everywhere in *The Skeptical Inquirer*.

The Fringes of Reason:

The Skeptical Inquirer:

I wonder if by any chance they are related. I think we should be told.

Bound for glory

E. Frenkel, the Russian who late last year undertook the ultimate test of his ability to stop on-coming trains using only his brain power, was a hit with NZ Skeptics too. Members have sent in eight clippings relating to the incident—an all-time record by a long way.

Calling all graphologists

While archiving material on Irene F. Hughes, the Golden Numbers astrologer about whom Hugh Young spoke at the 1989 Conference, I noticed she has a variety of signatures. The three printed below no doubt reflect her varying state of mind. Interpretative comment is welcomed.

Enclosed is my form letter which ou
wish to avail yourself of them dire
be purchased through the agency in

Blessings and I wish you good healt

ESPecially,

Irene F. Hughes
IFH:pm
Enc/

ZEALAND should be happy about
their normal sales of LOTTO a

ESPecially,

Irene F. Hughes
IFH:H

P.S. I was on the FRONT COVE

YS DREAMED OF...

Yours truly,

IRENE F. HUGHES (MRS)
(Psychic/Astrologer)

Doctor claimed telepathic diagnosis says report

(from the New Zealand Herald 1/5/90)

An Auckland doctor who is said to have claimed he could communicate subconsciously with a 16-month-old patient and predict diseases and the age at which the child would die has been found guilty of professional misconduct by the Medical Practitioners Disciplinary Committee.

A report of the three-day hearing, published in this month's issue of the New Zealand Medical Journal said the child, who had been taken to the doctor because of suspected food allergies, was not examined.

Instead the doctor connected an electrode to the mother's left middle toe while she held the child on her lap.

That electrode, plus another held by the mother in her hand were meant to yield a diagnosis of the child's condition through a Vega machine—a tool used in alternative medicine.

The report said that after the testing was concluded, the doctor continued his investigation by directing questions form his own subconscious to that of the child as the child ran around the surgery.

The answers were interpreted by responses of the Vega machine, which revealed allergies and also inherited chronic "miasms" from ancestors with venereal or mental diseases.

The doctor predicted death for the child at the age of 60 from carcinoma unless the "miasms" were removed by the homeopathic treatment he prescribed, said the report.

However, the lactose base of the homeopathic medicine given to the baby resulted in a violent gastrointestinal disturbance which lasted for several days.

After a hearing last year of evidence in this and two other cases, the committee found Dr Dennis Steeper, of Mt Eden, guilty of professional misconduct and commented that his behaviour bordered on disgraceful conduct.

He was fined $900 costs and expenses of $25,000. Several conditions were imposed on his practising as a doctor during the next three years.

In his submission to the committee, Dr Steeper said he did not dispute the evidence in the cases and he acknowledged the foolishness of his predictions—a practice he had now ceased.

In the other cases, evidence was heard of Dr Steeper predicting the possible death in a road accident at the age of 17 of a child then aged 12 months, after his mother took him to the surgery because of a suspected link between food allergies and asthma.

The committee found that Dr Steeper's statements to the mothers were misleading and hurtful and caused them distress and unnecessary anxiety.

The committee stressed that unorthodox or alternative methods were not on trial.

But, through Dr Steeper's standing as a registered medical practitioner he had been able to give credence or status to the use of his machine and the predictions and diagnoses he made.

The committee said it had no doubt that in each of the cases the behaviour of Dr Steeper fell substantially below the standard required of a medical practitioner.

The conditions imposed on his continued operation as a doctor were that his practice be supervised and reported on at quarterly intervals over the next three years; that he discontinue his "extrapolations" and communications of these to patients; and that he should make patients fully aware of his alternative medical practices, gaining written consent in advance.

Last night Dr Steeper said he considered the committee's decision unfair.

But he would not be appealing against the committee's decision because to do so he would have to go to the Medical Council—a body he felt would be less sympathetic to his methods.

A rose-tinted spectacle?

(from the Dominion 11/5/90)

Use of tinted lenses defended

NEW research dismissing the role of tinted lenses in treating reading difficulties has sparked an angry reaction from special education experts.

The Newcastle University study found Irlen lenses, worn by an estimated 8000 Australians, did not lead to any overall, significant improvement in reading among 60 children surveyed.

The lenses are used in New Zealand, though it is believed their use is not advocated by special education groups.

New Zealand eye specialist Sir Randal Elliot said the lenses were a controversial subject and there was no scientific evidence to support the belief that they could improve reading.

The researchers, reporting in the latest Australian Journal of Psychology, called for caution in use of the lenses because of

By MOERANGI VERCOE and NZPA

their unpredictable effects.

Though use could lead to dramatic, instant improvements in some people, this was probably due to behavioural factors rather than the lenses themselves, they said.

The study follows a National Health and Medical Research Council report, issued in Melbourne last week, which concluded there was no scientific evidence to support use of the lenses.

However, a Canberra psychologist specialising in learning disabilities, Peter O'Connor, said large amounts of scientific evidence supporting the lenses should not be ignored because of "tinpot research" involving small numbers of people.

Dr O'Connor said the lenses helped more than half of all people with reading problems, such as seeing blurry or moving print, who did not respond to treatment by optometrists.

He has been heavily involved in the introduction in Australia of the lenses, developed by Californian psychologist Helen Irlen.

Dr O'Connor said the research council represented the vested interests of the medical profession and so was critical of anything it saw as "alternative".

A senior lecturer in special education at Newcastle University, Gregory Robinson, criticised the council, saying it had not done its homework properly.

He said the lenses were not a magic cure but had helped many people for whom conventional treatment had failed.

Creationism in Wellington schools

A report of a survey conducted in 1988

In order to ascertain to what extent Creationist ideas and influence have penetrated secondary school science courses, we sent the following questionnaire to secondary schools in the Wellington region.

1) Approximately how many hours are devoted to the teaching of evolution in your school and what proportion of pupils are taught it?

2) Are Creationist ideas being taught at your school as part of a science course?

3) Do any science teachers in your school use Creationist literature with their classes?

Results of questionnaire

Nine replies were received from about 35 schools circulated. Although this provides only a small sample, and few generalisations can be made, the replies represent a good cross section, from central city large schools to "suburban" schools, and single sex and co-ed schools.

Most teachers made no comment of any concern they may have felt about the influence of Creationism in our schools, but 2 teachers specifically stated they felt there is a problem and that they are concerned about it. Most teachers expressed confidence that their 7th form pupils were able to decide for themselves on the merits or otherwise of the Creationist arguments, but one teacher specifically stated a concern that some pupils had already been "indoctrinated" and that few pupils had "the scientific background to adequately evaluate Creationist literature". Two schools said their science teaching staff included a Creationist (and a third school, from which no reply was received, is known to us). Hence, 3 out of 10 schools have Creationists on their science teaching staff.

Evolution is clearly absent altogether from lower Form (Forms 3–5) courses, and comprises a minor part, if any, of the 6th Form Biology course. In Form 7 it constitutes a major part (generally 20–25 hours) of the Biology course, which is taken by about 20–30% of the 7th Form. This presumably represents about 3% of the school role.

In total, 4 of the 9 schools expose their pupils to Creationist ideas in the teaching of evolution—generally as a "stimulus for discussion" but, in 2 cases, to show there are "alternatives that many people accept". Students are encouraged to discuss the question and to "decide for themselves". Two mentioned that they had taken classes to hear Dr Wilder-Smith (a prominent Creationist spokesman) talk, during his recent visit to New Zealand.

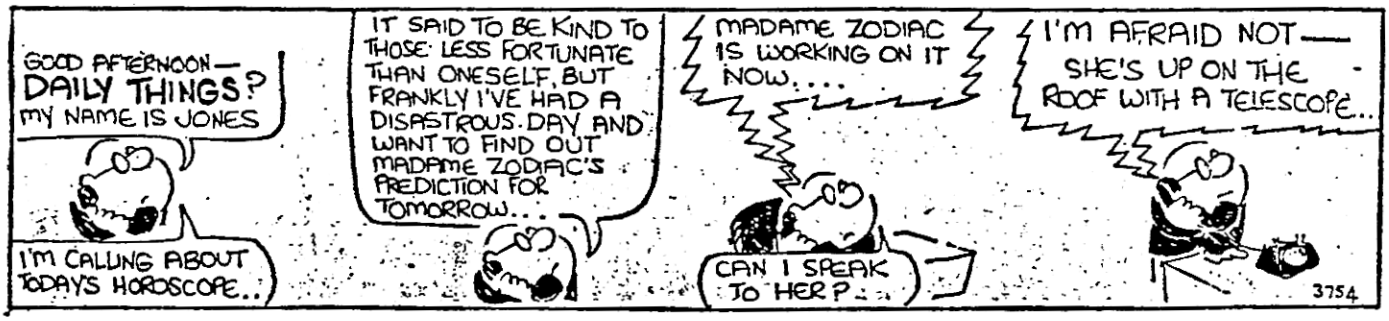
Comment

If the small sample is representative of Wellington schools, it seems that secondary school courses are relatively little influenced by Creationist ideas. However, there are some worrying aspects of the survey. The chief of these is that the Creationist notion of the origin of species (and of the age and origin of the Earth and Universe) is presented in several schools as an alternative to the scientific theories for these questions. This has the effect of raising the status of what is really a religious belief to that of a scientific theory, a debating trick exploited by the Creationists themselves. Unless the distinction between science and pseudo-science is taught in schools, will the pupils be able to make the distinction? It seems that some of the teachers do not clearly see the distinction themselves.

On the other hand, we would argue that ideas on special creation are an interesting topic for discussion in schools, within the context of comparative religion, or religious studies. It is only when they are presented in the guise of a scientific debate that we need feel concern.

Because of the small size of the sample, we cannot draw firm conclusions about the extent to which Creationist ideas are being introduced in science courses in our schools. However, there seems to be little cause for undue concern at this stage. Two teachers asked about teaching kits that could be used by teachers for discussion of the issue, and we as scientists clearly have an obligation to provide such material.

Roger Cooper (Paleontologist, NZ Geological Survey)
Gordon Hewitt (Biologist, School of Health Sciences, Central Institute of Technology)
Frank Andrews (Astronomer, Carter Observatory)
Dave Burton (Zoologist, Victoria University)



The Milan Brych Story

Greg Ansley

In this talk a journalist reflects on the rise and fall of a media superstar.

I am going to start with the premise that Milan Brych, charlatan though he may have been, was good for New Zealand. He was good for medicine, good for journalism, and good for the maturity of our society. And from a specifically newspaper point of view, he was good for business—colour and hope in his optimistic beginnings; scandal and outrage in his latter days here; and a vicarious delight in his free-wheeling American career.

Brych was a man whose time was ripe. New Zealand was a plum waiting to be picked, and he did it magnificently. He found a land of innocents looking for heroes. He found a medical profession strung by a code of conservatism and honour, and he played it to his tune; and he found a news media which had yet to fully realise that charlatans could be abroad in its home patch. Even if it did have an inkling of malfeasance, it was bound by laws so tight it could not risk exposing wrong-doing. That factor, unfortunately, remains the case even today.

These are points I will make at length. They are the reasons I believe Brych was a boon to this country. He shook us from our naivety and taught us to look behind the facade. He made it harder for others who would exploit us, harder for others who may try to grow fat on the tragedies of others, and harder for those who would make us look fools.

Brych was like many lessons—they hurt at the time, and although the scars may heal the memory never fades.

That Brych was able to so thoroughly hoodwink New Zealand is in some ways both incredible and, at the same time, understandable. On the one hand, he had a history that could not have survived even the merest nick on its surface, and it remains remarkable that no initial effort was made to scratch it. On the other hand, Brych was a man of great charisma whose personality blinded more than the medical profession. It is such that he maintains a core of supporters from among his surviving patients, and was able to speak with authority and confidence on his release from prison. For the media, though its opinion may have changed, Brych remains good copy.

Had Brych not been dealing in human tragedy, I suspect he could have become one of this nation's folk heroes. Conmen are readily admired, not strictly approved. Brych had both the qualifications and the background.

Brych left school in Czechoslovakia at 17, without university entrance qualifications. In 1958 he was jailed for armed robbery and, when he was released seven years later, found a job as a laboratory technician in Brno. He was given the job as part of his rehabilitation. The head of the institute later said Brych was dismissed for producing false laboratory results which endangered the lives of patients.

Brych was back in prison by 1967, this time for fraud and for trying to cross into Bulgaria illegally. A year later he was released in an amnesty promulgated just before Soviet tanks ended Dubcek's rule.

Those Soviet tanks released Brych on the West. He arrived in Italy in July 1968, claiming political asylum. You will remember how that invasion aroused outrage and anger in the West, and great sympathy for the refugees of Dubcek's experiment. Brych's identity card, which he handed to police at Trieste, made no reference to any professional qualifications though educational achievements and occupation are included on such documents.

Brych was, if nothing else, confident. He first said when applying for a special United Nations travel document that he held a doctorate in biology, but that he had been unable to bring his diplomas out of Czechoslovakia. In a further interview he claimed to be a physician, a fabrication we have all come to know about here.

Brych arrived in New Zealand in 1968, and began work as a laboratory assistant for the Auckland Hospital Board. The Board accepted his statement, and his assertion he was merely waiting for his qualifications to be smuggled out of Czechoslovakia. His employment in the laboratory was essentially arranged to give him time to improve his English.

Brych was not always going to be a cancer phenomenon here, apparently. In his early days in this country he sought help from another Czech refugee in compiling his application for registration with the Medical Council. At that time he told acquaintances he was a psychiatrist, and wanted help in translating his thesis "The mechanics of human emotions". I suspect Brych did know them well.

Inevitably, Mr Brych, psychiatrist, became Dr Brych, cancer revolutionary. It is a measure of his considerable powers that he became registered in 1972. Foreign doctors did not then have to sit examinations, and the Medical Council, like the Hospital Board and, later, the press, took him on trust. Brych's personality and a very adroit tongue, combined with sufficient superficial medical knowledge, must have been a heady brew. I suspect it must have been fairly pleasing, and somewhat flattering, for the Auckland Hospital Board to have secured a man of such apparent abilities.

The media became aware of Brych when he splashed on to front pages of newspapers throughout New Zealand claiming to have found a treatment for Hodgkins Disease. His claims were backed by the head of Auckland Hospital's radiology department, who described Brych's "unique use of drugs" as a significant advance in the treatment of cancer.

I make make no apologies for the immediate acceptance of Brych's claims by the press at that stage. Brych was, as we know, a very convincing and credible performer. He was pioneering a field still hidden in fear and mystery. He appeared to have found a cure for mankind's greatest disease, or part of it. No real explanations of his method were released which may have given cause for doubt. If they had, would a journalist have dared challenge a man of such apparent stature? And, above all, Brych was solidly backed by reputable and respected men of medicine.

Brych was as much a gem to the media as he was for Auckland Hospital. The press loves heroes. It loves local heroes even more. Brych became both. He was colourful, fashionable in both his field and background, and he was accessible. Brych was a certainty for media support. His patients gave every cause to continue that. He was everything a doctor should be—a man of science, a man of compassion. Reporters who saw him in action spoke of his ability to in-

spire the terminally ill with a confidence that they would indeed live. It was like finding out Dr Kildare was real.

Brych was more a darling to the media because traditionally medicine in this country is conservative at best, arcane at worst. Neither the media nor the profession was really practiced at talking with each other, and certainly not with any great confidence. Reporters saw doctors as alternately aloof, pompous, unnecessarily secretive, patronising or condescending. Doctors no doubt shared similarly uncomplimentary views of journalists. I accept these are generalisations, and that the situation is changing from both sides. But not then.

Suddenly, from this grey world, reporters were served up a man of colour, or personality and vitality, who knew how to play them, yet keep their respect. Here was a man serving humanity, who could combine the alchemy of medicine with the alchemy of public relations. Such men are rare in the business of journalism, especially in the New Zealand of 14 years ago, and are to be treasured. That conventional medicine gave its blessing was a bonus.

When the boom began to lower on Brych, it is not very surprising that a gulf also began to open between doubting doctors and the media, or that parts of the media gravitated to Brych's side. There was no clear evidence that this miracle worker had committed any wrong. Suggestions that he may have sinned were based, at least initially, on professional pique at his refusal to share his secrets.

I realise that more lies behind professional annoyance at Brych's refusal to disclose details of his modified chemotherapy than simply pique. Subsequent events proved beyond doubt the validity of shared knowledge, especially of new techniques. But you must remember that Brych had soared to public acclaim on the basis of peer support, the adoration of patients, and the resulting admiration of the press. To have doctors grumble without apparent due cause smacked initially of sour grapes. Journalists are familiar with the bitter, often deeply personal, battles that take place within science and academia from time to time. It was easy in Brych's case to believe other doctors were either jealous of the attention he was receiving, or irritated on professional grounds that such a peacock should invade their conservative cage.

Unease grew, however. As doubts increased in the medical profession, they began to be reflected in at least some parts of the media. This showed in the start of a separation of styles in reporting Brych.

Among those who felt Brych should follow medical protocol, if only for his own best interests, news emphasis moved away from the glamour of the man to fairly straight reportage of the controversy. This is a normal reaction in a media bound by our present defamation laws. It is simply too dangerous to make allegations, to repeat charges, or to even make implications, no matter how thorough the research. And the media has to be careful not to build heroes one day, and destroy them the next. It is not good journalism, and it is not good for the reputation of newspapers.

While some began the sobering-up process and started to take a less rarified look at Brych, others perceived the doctors demanding his secrets, and the hospital authorities who took him to a commission of inquiry, as stiff-necked conservatives resentful of real talent in their midst. Brych was seen by these reporters as the underdog, the small man against the establishment. To some people, Brych's sufferings symbolised all the indignities they had ever suffered at the hands of doctors.

When Brych was finally dismissed from the hospital it became clear that even the medical establishment did not quite know what to do with the man. Although he could no longer work at the hospital, the Hospital Board made arrangements for him to treat patients at a private hospital, which he did until November 1974. If doctors did not know how to handle Brych, it goes without saying that the media was also suffering some confusion. And all the while, Brych's charisma carried him through.

A measure of the power of his magnetism could be shown in the fact that some of his supporters won election to the Board in his cause. During the inquiry at Auckland Town Hall in 1974, the public galleries were packed with Brych advocates, who jeered any witnesses critical of their idol.

By now most of the media realised that something was very obviously askew with Milan Brych. The evidence against him mounted, culminating in the decision by the Medical Council to strike him from the register. Not a great deal of support was felt for his claims that the communists were out to get him, although the man remained very newsworthy. There had never been a Milan Brych here before. His personality blossomed even more under fire. His patients and supporters became, if anything, even more fanatical. There was certainly very little else that could compete with the spectacle of a man exposed and dishonoured by his profession thumbing his nose at both facts and former colleagues.

Brych was also rapidly becoming an international news phenomenon. The Australians, especially, were hungry for news of this bogus doctor who had, for a time, fooled the world into believing he was a messiah who could lead the dying back to life. Their interest, and the delight of journalists here in this continually-rolling story, heightened when Brych left for the Cook Islands.

By dodging the Supreme Court Appeal and thereby a hearing which could have ended his career forever, and by fleeing into the exotic embrace of the Cook Islands Prime Minister, Sir Albert Henry, Brych scored yet another public relations coup. Brych exiled in paradise, pursued by his pitiful followers and supported by the colourful Sir Albert, was a heady mixture. Brych drew new support from among Australian cancer victims, and new enemies in Australian medicine and media. His news value rose even higher when Sir Joh Bjelke-Petersen, the then Premier of Queensland, scoffed at federal authorities and backed Brych. That was also, however, the end of any credibility Brych may have retained among reporters. The nicest thing the Australian media said about Sir Joh was that he was a peanut farmer. Not long before he backed Brych, he also announced plans to build cars with internal combustion engines powered by water. The two seemed to fit naturally together in Sir Joh's bizarre world.

Brych of course disappeared to America, where, newspapers were delighted to learn, he managed to talk his way into an even more colourful mess. That is the value of Brych. His style and his audacity guarantee good copy. It is tragic that the copy should be based on the manipulation of tragedy.

But Brych taught us a lot. We know he was able to gain credibility here through natural sympathy for refugees of armed aggression. We know that medical authorities here assumed his credentials had been checked by the United Nations in Italy. And we know that apparent gaps in his knowledge were put down to inadequate English by a staff willing to give him the benefit of the doubt. We know the

strength of his personality. And we know that all these factors were compounded by a media that had found a hero.

We also know that none of this should have happened. The proper checks should have been made by the authorities. The media should have taken a closer look also at this phenomenon itself. Reporters should have made inquiries about his background, even if only for a feature on the man of the moment.

New Zealand is a different place now. It is wiser, and a little sadder. The introduction of examinations for foreign doctors wishing local registration by itself is a screen against another Brych. We are more suspicious, or at least careful as well. And the media is no longer easily blinded by the light of city slickers from the big bad world.

That said, and given the subject of this talk, I should say that mainstream medicine and skeptics will continue to be irritated by the media and its coverage of so-called alternative medicine.

Newspapers, especially, will continue to run stories on treatments and people who may be labelled quacks. This does not mean we will accept another Milan Brych so easily. Nor does it mean we are being taken for a ride, nor that we are supporting medical systems of dubious merit.

There are a number of reasons for this. The first is that traditional medicine has always regarded innovations with suspicion or distrust, right from the days when leeching was par for the course. Viral theories, you may remember, did not gain immediate acceptance. Nor did acupuncture. The media does not, therefore, regard our medical establishment as infallible, nor its pronouncements as indisputable. We have also made a practice for years now of appointing specialist medical reporters. Although most remain lay people, they gain a broad understanding of the field and, more importantly, contacts of authority and breadth of knowledge. The media also has more contact with developments overseas. These factors mean newspapers, in particular, are less likely to be intimidated by the establishment, and more willing to question it.

The second major reason why traditional medicine, if I may use the term, will continue to be upset by media coverage is that newspapers and television must entertain, as well as inform. That is why they run horoscopes, for example.

People **like** to read about the odd and the unusual. They also have the right to be told about it, and to have the information available to enable them to make up their own minds. What is important for the media to achieve is the balance between unlimited information and censorship, a line of responsibility that best serves the broad interests of New Zealanders.

I think Brych taught us that this balance should be achieved. I think he also taught us that it will not come to pass unless medicine and the media talk more candidly with each other. Since the development of medical reporters this has been evolving, but slowly and with difficulty. Reporters and doctors remain wary of each other, probably with good cause. Doctors need to retain confidentiality and professionalism. So do journalists. Their ultimate aims may not be the same, which is why I suspect doctors fear all reporters are unscrupulous cads and inveterate peeping toms. This is not the case, of course. The aims of each side can be met by striking the right balance, and that can be found by developing trust.

Trust, in turn, is developed by a willingness to talk. Reporters have as much cause to suspect contacts as contacts do reporters, and working towards a functional arrangement is not unlike a drip feed. It takes time. It is worth the effort.

There is a further element that concerns us, as reporters, and you, as skeptics. Both of us want to expose our charlatans, our cheats and our frauds. In most cases this is not possible outside of our courts, or parliament, unless you are willing to risk a defamation action.

Defaming someone means publishing a statement that brings someone into disrepute, or makes someone think less of him or her. It is worse in law to defame someone than to commit offences against their person. Actions now claim anything up to ten million dollars, which can be a strong deterrent for public skepticism.

If you claim someone is a fraud, you must also have the evidence to prove it in court, to the highest standards of the law. You are also guilty until you can prove yourself innocent by establishing that what you said or wrote is the absolute truth; which is far harder than it sounds. There is no room for reasonable doubt, as exists in criminal law.

You may present a list of completely true and accurate facts, yet still be successfully sued for tens of thousands of dollars. A court may find that while the facts are right, they left an implication which could not be proved.

You as skeptics have two problems from these laws. The first is the immediate danger to yourselves. The second is convincing the media to print something its lawyers would not touch with sterile gloves.

In theory, this means we could have another Milan Brych, or worse, in this country. We could all know about it, and do nothing because we cannot prove it to the satisfaction of laws framed by politicians who make good use of them. I suggest that you remember Milan Brych, and have a chat with your MP. The law is in the process of amendment now, but needs more work if the aims of skepticism, and a free press, are to be realised.

HOMEOPATHY: a definition

"Hahnemann's dilutions of grandeur."

J.C. Whorton in *Examining Holistic Medicine*, ed. D. Stalker & C. Glymour. Prometheus Books, Buffalo, N.Y., 1985.

(Thanks, Bernard.)

Anthroposophical medicine: an exchange of letters

Nathalie and Bill Morris

Atlantic College

Dear Dad,

Dr Michael Evans, a former student of Atlantic College, came last week to give a Friday evening lecture on anthroposophical medicine (A.M.). From what I can gather, it seems to be a system of medicine founded at the instigation of Rudolph Steiner, who claimed that a science limited to what was perceptible by the physical senses and using only analytical thinking would not be capable of understanding the fundamental life processes of man. A.M. believes that many illnesses are not wholly or ultimately explicable in terms of disordered physics and chemistry, but that the subject of the illness is lacking in some "vital essence" or that the vital essence has been disturbed in some way. It questions the reductionist approach of breaking down processes to the cellular or molecular level because:

> "In any account of life, whether of plant animal or man, there is the phenomenon of a space in which complex forms arise out of simple forms. This can be observed at a molecular or macroscopic level, as for example when simple salts from the earth are transformed into the structure of a plant as it grows out of a seed. This apparently contradicts what is taken as a fundamental law in physics, derived from the study of inanimate processes. The law says the degree of orderliness in a physical system always tends to decrease. This poses the question whether living organisms can ultimately be understood purely in terms of the processes present in the inanimate world".

A.M. also doubts whether genetic material could contain enough information to control the manufacture and describe the structure of the complex molecules that make up living beings, though Dr Evans cites as his authority for this a book on genetics published in 1968! He says that every single atom in our body changes over seven years so that we are constantly changing physically yet we remain essentially the same person, "I" or "ego" because of our vital force.

Steiner felt that the reductionist approach led one to lose sight of the essential processes of organisms and that a different kind of thinking, "more imaginative in quality and yet exact" would be needed to reach an understanding of the forces involved. Because of his command of the higher faculties of perception he was able to give an account of how formative processes in plants are influenced by planetary movements and how in man they are influenced by the higher elements of his being. Anthroposophical doctors try to develop these higher faculties in themselves and use a less analytical form of thinking to try to get a clearer picture of these forces, trying to look at phenomena without preconceived ideas and to allow the feelings produced to grow and enter into the thoughts which emerge. It seems that this requires a "development of an inward 'scientific objectivity' in the realm of ones thoughts and feeling, if one is not to be misled."

Anthroposophical treatments use homeopathic remedies harvested at the right moon and planetary phases for maximum effectiveness, special rhythmic massage "to harmonise the pattern of muscle tone and to stimulate the vitality of the tissues," hot baths containing oil of rosemary and lavender, rhythmic dance and art therapy. When I learned why mistletoe has a special place in anthroposphical medicine I was very amused:

> "The overall form of the mistletoe plant is approximately spherical and lacks the vertical structure that is a feature of most plants. Its form is not affected by gravity (it lacks geotropism). It has no real root and always grows on trees, never on the ground. All these features suggest a certain independence, and lack of influence by the earth. It carries berries all the year round and flowers in winter, unlike most other plants...Thus the whole form of mistletoe in time and space has the theme of its own strong individuality and its independence from earth forces and the rhythms of the seasons. It is the corresponding individualistic formative forces in a cancer patient which requires strengthening."

I felt that the audience was very warm towards Dr Evans and I talked to him after the lecture. He is very charming and persuasive to such an extent that I became a little alarmed. If I, used to being skeptical as I am, could be almost persuaded by this silly, feeble stuff, what of the others? I can quite understand that the treatments might well have a powerful placebo effect and these aspects could be combined with modern treatment with some benefit perhaps, but I think it sinks into quackery when it uses homeopathic remedies. I asked him what he thought about homeopathic remedies being tested to the same standards as conventional medicines and he said he hadn't thought it was possible as they work by these life forces, but some trials giving good preliminary results had been published recently. I said that if A.M. had better results than conventional medicine, it should be possible to demonstrate this in controlled trials. Had any been done? He thought not, but data was slowly being gathered. Anyway, read the information for yourself and tell me what you think. I have an open invitation to visit his clinic at Park Attwood in Worcestershire to discuss with him any of the Steiner I have read.

Love,

Nathalie

Dear Nathalie,

I've read your letter and the pamphlets you sent about A.M. more carefully now and can quite see how anyone who has no grasp of scientific principles could get sucked in. After all, if you were ill with an incurable disease or dis-ease, wouldn't you prefer to be looked after by warm, caring people who will look after all of you, rather than by cold, calculating, reductionist scientific doctors who will pay attention only to the diseased bit of you? Like so many other

fringe activities, A.M. has some of the elements of religion. It has its prophet or Messiah in the form of Rudolph Steiner, its holy books in the form of his writings, its mysticism, accessible only to a chosen few after prolonged effort and study, its special vocabulary "etheric body, ego, astral body, etc" and its special ritual with emphasis on natural, "vital" substances, rhythmic massage, scented oils, and so on.

You give a quotation about scientific reductionism being inadequate to explain life forces because living things contradict a fundamental law of physics that says "the degree of orderliness in a system always tends to decrease." This is a good example of what Prof. Paul Callaghan describes as "theft of our scientific language." They are prepared to use the language of science but not to submit to its rigour and they ignore or overlook the inexactitude of the comparisons they make. Whichever law of thermodynamics it is (the second?) that says that entropy or the degree of disorder in a system tends to a maximum is quite correct. Actually, I think it is about distribution of energy within a closed system strictly speaking. Order does tend to zero, but can of course be forced the other way with an input of energy, which is exactly what happens when a plant or animal grows. There are superficial similarities when it eventually decays ...

> The boast of heraldry, the pomp of power, The paths of glory tend but to maximum entropy.

I think philosophers use the expression "argument from spurious similarity" in describing language theft. It goes something like this: a) Theory X uses principles similar to theory Y; b) Theory Y is part of current scientific thought; c) Therefore, theory X is consistent with current scientific thought.

Molecular biology has in fact been rather successful in the last thirty-five years or so in understanding organisms at a molecular level and this understanding has depended to a large extent on the powerful insights of quantum electrodynamics. I don't think anyone nowadays seriously doubts that the genetic material of organisms does contain enough information to describe the proteins; and understanding the control systems is progressing rapidly. It certainly is not correct that "...every single atom in out body changes over seven years..." (note the mystical number seven). If this were true, we would not for example worry as much about nuclear accidents and stuff like iodine 132 and strontium 90 hanging about in our bodies. Perhaps it is because the statement is especially untrue of our nervous systems that we remain the same person, "I" or "ego" rather than because of a mystical "life force."

I quite agree with your suggestion that A.M. treatments have as some or all of their basis the placebo effect, something that is just as true of many conventional medicines and treatments. Many patients treated with modern remedies may well have recovered perfectly well with the passage of time, but it is not often that we can predict who would have recovered and who would not. We do know that for practical purposes, everyone with tuberculosis of the brain's coverings and bacterial infection of the heart's lining died in pre-antibiotic days. We know that falciparum malaria has a high fatality rate untreated but 600mg of chloroquine can pull someone from death's door literally overnight. Smallpox no longer exists as a disease on planet Earth and diphtheria and polio are almost unknown in developed countries. I must say that "alternative" or "complementary" medicine systems such as A.M. have no major triumphs such as these to boast about. I think you were right to remain skeptical despite Dr Evans' charisma.

Love from Dad

A skeptical look at organic gardening.

B.H. Howard.

On Thursday evening, 26 June 1990, a large number of members and friends gathered at the University of Canterbury Staff Club in Christchurch, to hear Prof. T.W. Walker, late of Lincoln University, talk on Organic Gardening.

After a brief history of agriculture, and of the contribution made to agricultural production by chemistry in the nineteenth century, Prof. Walker discussed a range of "organic" topics. Compost, in his view, is a "Good Thing"; so are inorganic fertilizers, added to the soil to supply plants' needs for potassium, sulphur, and trace elements. He poked gentle fun at the inconsistencies of "organic gardeners", and the tortuous arguments used in deciding which of these "chemicals" to accept and which to reject. His strongest condemnation he aimed at the "biodynamic" school of agriculture, the followers of Rudolf Steiner. Their practices are wildly paranormal, and lack any experimental verification.

Among non-members present was the teacher-in-charge of the Organic Gardening course at Christchurch Polytechnic, and at the invitation of the Chair, she spoke briefly about herself. A lively discussion ensued, which continued during supper after the meeting closed.

Letters

In newsletter no. 15 was a letter from Denis Hogan regarding Brian Edwards' investigation of Filipino psychic surgery.

I remember that T.V. show very well, but instead of a Filipino magican I am sure Edwards used a New Zealand professional, Jon Zealando, wonderfully disguised as a Filipino psychic surgeon.

P. Williams (Mrs)

Bay Area Skeptics are Spot-on

P.A.B.

Popular books on the paranormal often source their supporting evidence from all over the world. While this may seem to enhance an argument's credibility by giving the impression the phenomenon in question is universal, I suspect it is more because of the paucity of evidence that the net is cast so widely. When on occasions the net reaches as far as New Zealand I find I am especially skeptical. To take a recent example, in Jenny Randle's "Abduction" a New Zealand encounter of the third kind is described thus:

> We have some interesting reports from Aborigines and Maoris, the true natives of Australia, and New Zealand. At Awanui, in New Zealand, on 22 February 1969, one Maori met several of the tall entities with the thin faces, very white skins and long fair hair. They were in a wood beside a big glow. The Maori had no idea what was happening, so he fled and carried out a local ritual for warding off spirits. This seems to have consisted of running around in a circle whilst urinating.

(For a somewhat different perspective on this incident refer Dykes, Mervyn *Strangers in our Skies*, Wellington 1981, p138.)

The subject of this essay, however, is an instance of the reverse of these circumstances. However, behind it is the idea that a co-ordinated effort by skeptics throughout the world could effectively challenge the literature of pseudo-science.

New Zealand has produced one outstanding writer in the popular paranormality genre: Bruce Cathie. He has written four books of which two were best sellers. *Harmonic 33* had six printings between 1968 and 1974. *Harmonic 695: The UFO and Anti-Gravity* (written with P.N. Temm) had three printings between 1971 and 1973. This success was all the more remarkable for being achieved despite abstruse calculations accounting for a good proportion of both volumes.

Cathie has long since been out of the spotlight. However, according to the *New Zealand UFO Report* of February 1989 he is still active:

> One event of note was a talk given by Bruce Cathie (author of the four Harmonic books) to the monthly meeting of the Auckland Astronomical Society. There appeared to be a mixed audience of those who were genuinely impressed with his explanations of further work he has done on his grid theory. Then there were a few who felt they needed to be skeptical 'on behalf of science'. Some of these latter even asked particularly naive, and even silly questions. Astronomers and scientists should read any books by Paul Davies i.e. *The Ghost In The Atom, Other Worlds* etc on the quantum theory, they will find scientific research material far more bizarre than the Cathie grid system.

Not only is Cathie the doyen of New Zealand ufologists but he also has an international reputation. Part of *Harmonic 695* was republished in Childress, D. Hatcher *The Anti-Gravity Handbook*, Stelle, Ill. 1985. Parts of his two most recent books *The Pulse of the Universe: Harmonic 288* (1977) and *The Bridge to Infinity: Harmonic 371244* (1983) were reprinted in Childress, D. Hatcher *The Anti-Gravity and the World Grid*, Stelle, Ill. 1987. (Stelle, Ill. is the headquarters of a group of latter-day Lemurians. Whether Childress is one of them, I haven't determined.)

In his books Cathie argues that there is a world-wide grid of gravity waves transmitted by aerials lodged in the earth by aliens in the distant past. In modern times they use it, as they did before, as a power source or navigation aid, or both, for their spacecraft. Not only UFO sightings but other unusual phenomena and places of esoteric significance are located on this grid. While the UFO sightings he mentions are mostly New Zealand cases, the other evidence is taken from around the world. In *Harmonic 33*, for example, they include: the Tunguska Event (the great Siberian explosion of 1908) pp40–44; the Greek island Santorini (possibly the original of Atlantis) pp97–99; Sodom and Gomorrah p135; the Great Pyramid pp141–144; Stonehenge pp164–167.

The Santa Cruz Mystery Spot, is mentioned in both *Harmonic 33*, (pp 59–61) and *Harmonic 695*, (pp114–115). Cathie doesn't say very much about it, but indicates he thinks that at this particular part of California there occurs a distortion to gravity and light waves unexplained by conventional science.†

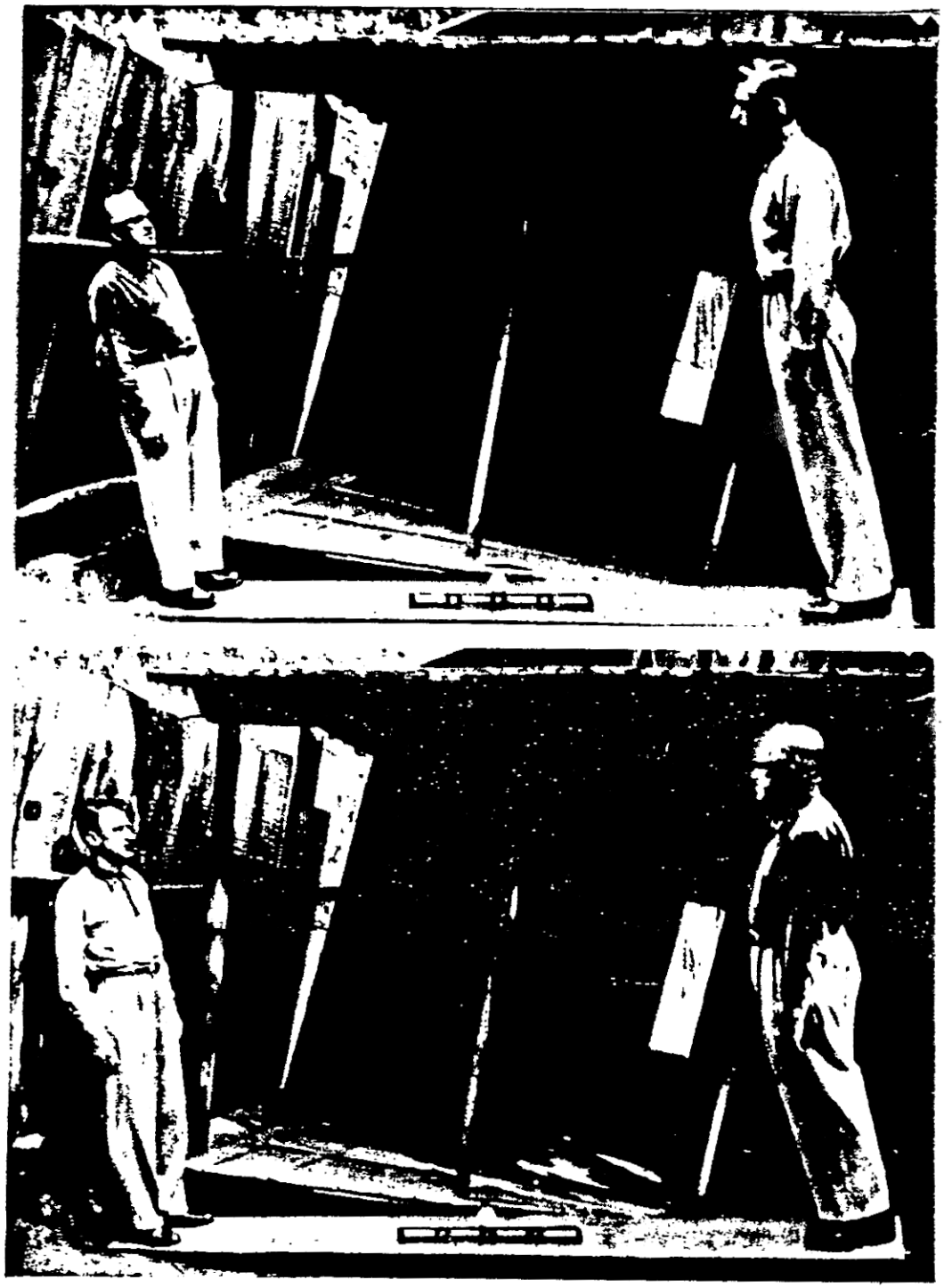
In *Harmonic 695* there also appears the illustration reproduced here. The picture is found again, although without any relevant text by Cathie, apart from the caption, in Childress' *The Anti-Gravity Handbook.*

I guess it is the illustration that has caused my fascination with the Mystery Spot. I find it amusing, the comedy being heightened by the seriousness (dare I say "gravity"?) with which the caption states the obvious. Judging from the style of the clothes I would guess the photograph dates from the late-40s/early-50s. Why so old a picture? Surely having a photograph of oneself being subjected to this weird effect would be a must for any visitor to this tourist attraction.‡

In *Harmonic 33* Cathie refers to a television programme on the Santa Cruz vortex. I recollect seeing in a compilation programme in Jack Douglas' travelogue series *America* film of a place where gravity seemed to operate strangely: I particularly recall a shot of a car running backwards uphill with its engine off. From the programme blurbs in *The Listener* it was most likely in the episode *Criss-cross Caravan.* That episode had an "emphasis on the unusual" and was shown by WNTV on 18/7/67. Given the publication date of Cathie's book (1968) this may have been the programme he was referring to, although it was not by any means devoted entirely to the Mystery Spot.

†On page 60 of *Harmonic 33* there is a diagram relating the "Santa Cruz gravity anomaly" to the Puye ruins. The basis for this relationship is not explained. However, five pages later Cathie relates the Puye ruins (ruins of cliff dwellings in New Mexico) to Santa Cruz in New Mexico, as he does again in diagrams on pages 177 and 179. Unless the Santa Cruz in Santa Fe county, New Mexico has its own gravity anomaly, Cathie appears to be a little confused.

‡ A whole article could be written about the information in the picture. Suffice it to say, the lighting of the figure on the right seems inconsistent with the rest of the illustration, making me believe the picture is a neat cut-and-paste job.



"Mystery Spot", Santa Cruz, California—a gravity-anomaly area. Note the apparent change in height of the two men when they exchange positions.

My interest was recently rekindled when *New Truth* in the first of its *Unexplained Mysteries* series (25/8/89) featured a story that, quite incidentally, made reference to the Mystery Spot: "It is in the Santa Cruz Mountains of California and gravity is said to go haywire there. Water, apparently, will run up hill. And if a ball is thrown, it returns to the person who threw it, just like a boomerang".

Now there are such things as gravity anomalies caused by abnormal concentrations of mass, although none with the remarkable effects claimed for this Californian locality. (Cathie even claims the anomaly enables a man to walk up a wall like a human fly!)

It seemed the best way to get to the bottom of this (apart from going to California) was to write to the Skeptics "on the spot". The Bay Area Skeptics are one of the most active local Skeptics groups anywhere, as anyone who has read their newsletter *BASis* will recognise. I was delighted with their response. The following comments were provided.

From Rick Moen, Secretary of the Bay Area Skeptics:

> As chance would have it, when I was studying at the University of California at Santa Cruz, I visited the "Mystery Spot" with a college friend of mine. We briefly considered doing an expose of the place for the college paper, but getting definitive evidence seemed quite a chore, and the results seemed likely to be too colourless to make it worth our while.
>
> Briefly, the Mystery Spot is a steep-sided, wooded dell in the foothills of the Santa Cruz mountains...set up as a tourist attraction. The promoters have a vari-

ety of yarns to tell...about highly diverse alleged strange goings-on there. One that sticks in my mind is a trick room with non-parallel surfaces designed to warp ones perspective.

The room suggests what I regard as the key to the principal claims the promoters make: The particular, slightly claustrophobic appearance of the dell produce visual cues that make one misjudge what is vertical; and therefore slightly miscalculate the angle to the horizontal. So, looking in particular directions at specific spots, the promoters are able to get visitors to believe that balls roll slightly uphill there, etc. This effect is helped along by large amounts of suggestion, assiduously cultivated by the promoters.

My theory is certainly testable (given a small amount of cooperation from the promoters), but I admit I have not done so. It should be simple to temporarily remove visual cues for some of the claimed effects, if anyone takes the place seriously enough, given the carnival atmosphere and the mish-mash of outlandish claims the owners push.

From Keith Goldfarb, via "sci.skeptic" discussion group on USENET, an academic computer network:

I've been there. The best explanation I've heard is that we have two sources of information about the direction of vertical. ...One is the inner ear, the other is subtle visual cues from the surroundings—the direction of the walls of buildings and the direction of plant growth and whatnot. "Mystery Spots" are places where for one reason or another these visual cues are on a slant. As a result of the slant people actually lean slightly when they think they're standing straight up.

One telling bit of evidence for this is the odd sensation that the Mystery Spot produces. It's not quite dizziness or nausea—sort of a cross between those two sensations. It's not intense, but it's definitely present. Now we can see it as being produced by the conflict between the visual and the inner-ear systems about the direction of the vertical.

From Kent Harker, another BAS member who has visited the Spot:

What is unfortunate about the whole thing is that for some reason its promoters cannot represent the Mystery Spot for what it really is: a very clever optical illusion. It could be used as a stunning demonstration of just how unreliable our senses can be under certain conditions. Evidently the promoters believe that mystery has a higher commercial value than clever reality. At one place of the tour, the design of the room was such that ones eyes say one is standing on level ground, but the center of gravity, by the inclination of the floor, is off to the side. The net effect is to cause a sensation of eeriness if not malaise. When this feeling is enhanced by a tour monologue about mystical forces, the hair on ones back goes right up, confirming that there is definitely "something weird" about the place...

...Unfortunately, the Mystery Spot has its commercial clones in numerous other places in the U.S. In a recreational park called Frontier Village (now defunct) in San Jose (about 50 miles north of Santa Cruz) there was a small cabin constructed over the death site of some western hero. The cabin was allegedly a replica so authentic that the ghosts of that bygone era were drawn to dwell therein, resulting in suspension of the laws of nature. The design and effects where identical to those of the Mystery Spot.

Kent also observes:

...if there were a place on the Earth where the force of gravity was indeed inoperative it would not be a center for tourist amusement. It would be a center for physicists from all over the world complemented with an enormous battery of scientific equipment. It would be one of the more spectacular discoveries in all history.

While these comments helpfully put the Mystery Spot into context, they do not, alas, constitute even a minor dent in Cathieism. Cathie's evidence is eclectic: Ancient astronauts loom rather large in it; The Bermuda Triangle, the Philadelphia Experiment, levitation, the Incas, the Miracle of Fatima, and Nicola Tesla are all there along with the Men in Black. There are plenty of assumptions. The extensive mathematical calculations look contrived. A comprehensive critique of the arguments of the Harmonic books would be a major undertaking.

However passe Cathie might be I would like to see an analysis of his work. The germ of it could lie in some criticism he cites on pp43–44 of *Harmonic 33*. It is cited in the context of his investigation of the Tunguska Event. Cathie responds "...I am not juggling figures to give me the answer I want. The figures already exist to confirm my arguments. I am interested only in what I have found, and what I can see, and the mathematical complexity of the gird, as I have discovered it." However when in *Harmonic 695* he admits he made a major faux pas in his calculations regarding Tunguska he seems unaware that his attempt to retrieve the situation (pp141–143) lends support to the criticism he had earlier dismissed.

Bruce Cathie was undoubtedly very popular. (An interesting aspect of Cathie's period of fame is the way his credibility was popularly based on his being an airline pilot. On the other hand, when the dust jacket blurb of *Pulse of the Universe* says "He was cleared for command on Boeing 737 airliners in 1977" it sounds like a reassurance for nervous flight passengers.) For me, the most amazing revelation in Cathie's early books is the record on the back of the title page of the number of printings they have had.

His-stories

P.A.B.

At the 1989 NZCSICOP conference Dr Denis Dutton generalised that women's magazines contained horoscopes and men's magazines didn't. A female voice rightly objected that Broadsheet was horoscope-less. There is also a dubious exception to the generalisation about men's magazines (see box). Nevertheless, what Denis said was largely confirmed by a quick survey I made of women's magazines at a Whitcoulls newsstand. *New York Woman* doesn't carry horoscopes, neither does *Moxie* (but it does carry an advice column by a so-called psychic). These were the only additional exceptions I could find. However I discovered Australian *Elle* has not only horoscopes but a numerology page as well.

This is not to say that men have no interest in the paranormal. My guess was that while men may have relatively little interest in such personal paranormality as horoscopes, alternative healthcare, channelling and the like, they would be the more likely consumers of stories of UFOs, the Bermuda Triangle, and ancient astronauts.

Having in Part 1 looked at *Broadsheet* and the *New Zealand Woman's Weekly* as representing, respectively, alternative and conventional women's magazines, it would be fair to investigate two equivalent men's magazines. Unfortunately, there aren't any. For a start, there are no New Zealand men's magazines. While the Australian edition of *Penthouse* may serve as a "typical" man's magazine, I have had to take the well-bred American magazine *Esquire* as representing the alternative. Given that in 1978 almost half *Esquire*'s editorial staff were women (admittedly the proportion steadily declined over the next six years) it perhaps may do.

A survey of *Esquire* from 1978 to 1984 turned up only five articles of Skeptical interest. Only one of them was a feature article. The rest were contributions to regular columns. They may be summarised thus:

14 March 1978 (Sports) *Biorythmns and the Big Game* by Ray Blount Jr.

The essay is a witty and sharply critical account of biorythmns. It adopts the simple but effective procedure of applying biorythmns to great moments in baseball, boxing and football, and finds the theory wanting. It could be objected the cases are selective. Perhaps for this reason its conclusion is ambivalent:

"No doubt there is something in biorythmns. According to what one reads, a great deal of enthusiastic research is being done on them, and the Japanese and the Swiss find them useful. But I wouldn't bet the rent—not if I wanted to go on paying it rythmically."

January 1984 (Ethics) *Looking for an answer* by Anthony Brandt.

Not many magazines have "Ethics" columns. When it was written by Harry Stein I thought it one of the best things in *Esquire*. In this essay Stein's successor recounts a visit to a young astrologer whom he found utterly persuasive. "A scientist laughs at this kind of evidence—I should too. From the rational point of view it is indefensible." But Brandt goes on: "I find it hard not to believe that a spiritual system of some sort invests the world. Science surely cannot explain everything."

Brandt endorses horoscopes, I Ching and reincarnation, but in the end confesses:

> "Life may have a spiritual system behind it, but few can agree on what it is, where 'the truth' lies. So here I stand, possibly forever: halfway between skepticism and belief; one foot in Eden, one in the battlefield."

It is a self-indulgent, unenlightening piece, and has little discernible connection with ethics. Brandt may have 'one foot in Eden, one in the battlefield', but his weight is not evenly distributed between them.

January 1984 (Unconventional Wisdom) *Walking on Fire* by Adam Smith.

Smith, a highly regarded *Esquire* writer, normally writes, like his namesake, on matters of economics. However, in this article he deals with a topic close to N.Z. Skeptics' hearts.

> "The usual rationalistic explanation is that fire walking is some sort of a hoax, or that there is a perfectly ordinary phenomenon involved to which no one pays sufficient attention. A 1977 article in *Scientific American* said the firewalkers' feet were protected by the 'Leidenfrost point,' the same effect that makes drops of water dance on a skillet. Heat vaporizes the bottom of the water drop as it nears the skillet, forming a thin cushion of vapor. But the author of the *Scientific American* article based his thesis on a study of drops of water, not of fire walking."

And so much for rationalistic explanations. Those who attended Dr John Cameron's excellent lecture at the 1989 N.Z. Skeptics conference will consider that particular explanation quite inadequate.

The article quotes Andrew Weill. Weill

> "...a physician who has written on both conventional and alternative medicine, surveyed the fire-walking literature as part of his new book, *Health and Healing*. He found that the appeal of such explanations as the 'Leidenfrost effect' to the scientists who propose them is that they avoid any reference to the mind and consciousness."

Not so. If the physics is adequate who needs mind and consciousness? The article is at pains to promote the spiritual side of firewalking. It quotes a firewalker who has 'seen the light':

> "I think this is a time in world history... when we have to look at the invisible limitations placed on us by our assumptions. If we can walk across fire, why can't we solve some of our basic problems? Why can't we control the proliferation of arms... If I had to tell you what that experience did for me, I would say it made me aware that we limit our own potential ourselves, because we exclude it by our beliefs. We can do far more than we think we can."

I find this frightening.

June 1984 (Sports Clinic) *Art of control* by Michael Keiffer.

The article is about the Eastern martial arts and in particular the astounding physical feats martial artists can achieve supposedly through control of "Ki"—life energy.

> "By focusing energy, or Ki, martial arts masters can make themselves too heavy to be moved and can knock a man down with a punch whose trajectory is shorter than two inches."

The Eastern martial arts could prove a novel area of research for skeptics. Bruce Lee himself said "Ninety per cent of oriental self-defence is baloney"[1] and it is pleasing to see the 'mystical powers', including the one inch punch, being given the heave-ho in the magazine *Australasian Fighting Arts* (see Vol.12, No. 2, page 45 and Vol.12, No. 4, page 76).

One full-length article which appeared in this period may be on the periphery of the skeptic's area of interest. *The Power of Trance* by Thomas B. Morgan (January 1983, p.74) enthusiastically describes self-hypnosis and how it has helped the author in, among other things, writing that very article. Following Julian Jaynes, Morgan seems to reject the notion that hypnosis is no more than an expression of normal human sugestibility and to endorse hypnosis as an altered state of mind. Many skeptics would think otherwise.

The earliest of the *Esquires* examined contains a letter from a doctor responding to an article, "What your Eyes tell you about your Health" (January 1978). He said "(Iridology's) major benefits appear to be of an economic nature to those audacious enough to practice this dubious speciality." The author of the article, a Ms Maxwell, gave this odd reply:

> "Dr. Klaus Kuehn appears to be suffering from a peculiar myopia that causes certain members of the American medical community to resist diagnostic techniques they don't themselves practice—and can't bill for."

It does appear that the incidence of paranormal/New Age articles in *Esquire* increased during the period looked at. More recent issues of the magazine seem to be loaded with fashion plates and smell of perfume. This prevents me investigating whether the magazine has further immitated conventional woman's magazines by providing its readers with a regular diet of paranormality. I am certainly sceptical about *Esquire*'s claim to present "Man at his best".

Recent issues of *Penthouse*, our 'conventional man's magazine', have include the following articles of skeptical interest:

The Prophets of Profit by James Randi (February 1987)
The Tao of Sex Part I by John Masters (May 1988)
The Tao of Sex Part II by John Masters (June 1988)
Mindbending made easy by Ben Harris (June 1988)
an article on the New Age by Jean Norman (October 1989)
Abducted? by Bill Chalker (November 1989)

There may well be others.

Randi's exposure of faith-healing scams is justly famous. 'How to be a psychic' and, judging from a subsequent letter to the editor, the Jean Norman article take a light-hearted, skeptical look at psychics and aspects of the New Age.

The Tao of Sex articles will interest anyone seeking the Ki to an improved love life.

Despite the question mark in its title Bill Chalker's six-page article devotes only one paragraph to a skeptical viewpoint (Philip Klass's). Chalker tries to counter it by referring to Jenny Randles' book *Abduction* which is said to give details of "over 200 abductions reported from 35 countries". (See p.10 for a comment on Randles' book.) Clearly, the skeptical viewpoint is not given justice.

Conclusion

I was surprised to find that UFOs (apart from their connection with abductions) and ancient astronauts figured not at all in men's magazines. The latter subject is obviously passe. The channelling boom, on the other hand, is too recent to have featured in the *Esquire* sample. There seems to be much less interest in alternative health amongst male readers, than female.

I was surprised that the two men's magazines dealt with the paranormal as much as they did. However neither of them did so anywhere near as obsessively as the *N.Z. Woman's Weekly*. My impression is that *Esquire* is even less inclined to debate the paranormal than *Broadsheet*. The most active questioner of the paranormal is clearly *Penthouse*.

Envoie

The March 1990 *Broadsheet* devoted more than one page to Alternative Approaches to the Treatment of Cervical Dysplasia. The alternative approaches were acupuncture, naturopathy and homeopathy. A 'strong note of caution' regarding the use of these therapies was sounded by Sandra Coney the following month. The alternative therapy advocates responded in the June/July issue. Another letter with syntax as weird as its content also appeared in the June/July issue giving the impression that alternativists are strong amongst *Broadsheet*'s readership.

1. Sinclair, Marianne *They died Young* London 1976, p.160.

Horror-scope

Picture's ratio of cheesecake to beefcake favours the former to such an extent it must be considered a man's magazine.

Picture is also extremely crude. "World-wide photo exclusive—SEX-MAD FOOL CUTS OFF HIS TOOL ("Ouch!")" was the lead story on the cover of its 20 March 1990 issue. The photographic evidence is unconvincing, I hasten to add.

The magazine, published in Australia (you guessed?), has a number of paranormal features in its 20 March issue. "Atomic rays fix sick ticker" is, surprisingly, about the 'science of dowsing'. Two pages are devoted to "Mysterious Worlds", a regular column by Garry Wiseman called 'Australia's liveliest psychic investigator'. The column is somewhat eccentric, containing as it does a sceptical item "Psycho-rapists are having themselves on" which reports that hypnotising UFO abductees may be producing bogus results.

The most eccentric thing, however, about this "man's magazine" is that it contains *horoscopes*. They're in "Off the Planet" with Stella Starkers. Looking up my own horoscope under Scorpio (you guessed that too?) I find this:

> You dream you're in a Vietnam rice paddy under heavy shelling. You wake up to find you've wet the bed and a maniac is shooting up the neighbourhood. Stella advises: Shoot him or be shot.

Definitely not your usual horoscope.

Medical roundup

John Welch

RSI

"*Repetitive strain injury*": an iatrogenic epidemic of simulated injury.

This brilliant analysis is by Dr David Bell and examines the rapid rise in new cases which earned the condition the derisory term "kangaroo paw". He analyses the concept of occupational neurosis and notes, as a psychiatrist, that many people seen by him for this condition had personality disorders.

Doctors contributed to this epidemic with an uncritical acceptance summarized in the article as "abnormal diagnosis behaviour which leads to abnormal illness behaviour in the patient and is invariably compounded by abnormal treatment behaviour".

The author examines historical precedents and concludes "The medical opinions which supported 'RSI' did not merely lack objective scientific backing; they contradicted established medical knowledge and common sense and were accompanied by a failure to conduct an adequate examination".

This article is well worth reading by all doctors and skeptics.

Source: *The Med. J. of Australia* Sep 4, 1989 Vol.151.

Rheumatic Non-Disease

Dr B.S. Rose continues this theme in an article entitled "Rheumatic non-disease: The phantom epidemic." The author claims that "the importance of non-disease has hitherto been greatly underestimated" and he is probably right. He defines Type 1 disease to be the attribution of disease on a speculative basis eg. 'non-herbicide poisoning'.

Type 2 non-disease is defined as the sensational labelling of common dysfunctions in a particular social context eg. chronic fatigue syndrome, formerly ME or myalgic encephalomyelitis (RSI of the brain?) Type 2 non-disease would obviously include RSI.

Source: *Patient Management* Dec 1989/Jan 1990

Alternative Medicine

"I believe it is time for a serious evaluation of alternative medicine" writes a columnist, RETRACTOR, as he outlines a classic case where herbal treatment failed to help an ill patient because, as the herbalist put it "We left it too late". This herbalist has all the outcomes covered. If the patient recovered, take all the credit but if he doesn't, it was too late!

RETRACTOR makes a plea that doctors inform their patients about the scientific aspects of alternative treatments instead of aquiescing. I suspect that there is not enough time during the average consultation and many people are immune to scientific critique ("normals" according to McGlone).

Source: *New Zealand Doctor* June 5

Homeopathic Treatments For Pets

We get a clue as to its attraction for Vets when "people are paying hundreds of dollars a visit to have their pets treated... We've just scratched the surface" (presumably of their owner's wallets).

Animals probably recover even better from minor ailments than humans so they are on to a good thing with homeopathic treatment which is, after all, an expensive way of administering a placebo. A constipated python (boa constrictus?) which had eaten 8 or 9 mice was given nux vomica. It worked in 24 hours but the article does not go into details about just what was deposited on the owner's carpet afterwards.

Source: *Christchurch Press* June 13 1990

Ozone

Ozone has been in the news lately. It is given by injection and its New Zealand proponent, Dr Rickard, is described as a naturopath, osteopath and clinical psychologist (not necessarily in order of scientific validity). As usual with a quack remedy ozone is touted as "the answer to cancer, and could cure every other virus, including the common cold."

This treatment fails to account for the fact that under normal circumstances our haemoglobin (oxygen-carrying pigment) is saturated with oxygen and adding ozone (which immediately breaks down into oxygen) will not significantly alter the amount of oxygen available to the tissues. Enhancing tissue oxygen supplies would be expected to enhance the growth of cancerous tumours, not reduce them!

In France doctors are injecting patients with ozone at $NZ60–120 a shot and claim that it "combats fatigue, purifies the body of toxins, fights memory loss, and stimulates the circulation."

Here again is the vague, subjective language of people demonstrating a fundamental ignorance of basic science which I feel is probably excusable in a country where homeopathy is part of mainstream medicine! A cosmetic surgeon has been giving these injections to about 20 patients a day for 6 years. Using the figures supplied that's an income of $NZ1200–2400 per day which I feel is the main attraction for the doctors. Readers who would like to try the treatment but who dislike injections will be relieved to know that it can be given "anally through a tube."

Gazing into my crystal ball, I predict that this treatment will arrive here in New Zealand a few minutes either side of 4.15pm on the 13th May 1991.

Source: *Christchurch Press* May 11 1990,
NZ General Practice March 27 1990.

Rationalism versus irrationalism in the care of the sick: science versus the absurd

This article outlines how rationalism and irrationalism have coexisted throughout the history of medical practice. For example, even after Harvey had proved his theory about the circulation of the blood, anatomists continued to search in vain for the (non-existent) pores postulated by Galen to link the two ventricles of the heart. Harvey lost his job and his livelihood, surely a graphic example of the wrath of the "normals" descending on the head of an "alien" (see *NZ Skeptic* No 16, Matt McGlone).

The author outlines how the enormous advances made by modern medicine have fostered a public belief that a cure or treatment exists for every ailment. As many as 50% of complaints which present to GPs do not have a diagnosis. It is the doctors who cannot live with uncertainty who fall into the trap of adopting specious treatments.

This is an excellent review and well worth reading.

Source: *The Med. J.of Australia* Dec 4/18, 1989 Vol.151.

Whatever happened to Mrs Lot?

Bill Morris

Nearly everyone knows that in Old Testament times Sodom and Gomorrah were pretty naughty places to be and that the Lord, after negotiations with Abraham, was moved to spare any good people that could be found in them. In the event, it seems that only Lot, his wife and his two unmarried daughters fitted the bill. It is true that his two sons-in-law-to-be were invited to leave with Lot and his family, but they scoffed at the idea that two angels were going to destroy the city of Sodom with little obvious help.

Mr and Mrs Lot were told "Escape for thy life; look not behind thee, neither stay thou in all the plain; escape to the mountain, lest thou be consumed." Somewhat unfairly, to my way of thinking, there was no "or else" attached to the looking back, to make them suspect that something unpleasant might happen it they did. In the event, Mrs Lot did look back and "she became a pillar of salt."

I have come across two explanations for this paranormal misfortune that befell Mrs Lot (in the April 1989 *Journal of the Royal Society of Medicine*) and will add to them one of my own which seems a little more plausible.

One suggestion is that on looking back, she missed her footing and fell into a deep, highly saline pool which apparently abound in those parts. Lot, of course, was keeping his eyes to the fore so that his wife was left to struggle out unaided and moribund. Her saline-soaked garments quickly dried out in the heat as she expired, leaving an apparent pillar of salt crystals, albeit a horizontal one.

Another suggestion is that Mrs Lot was not perhaps as free from sin as her husband. (We learn later that her surviving daughters deliberately committed incest with their father as he lay in drunken sleep). It is possible that in the past she had contracted a sexually transmitted disease and, in pre-antibiotic days, urinary tract and kidney damage was one of the results. Maybe she had end-stage kidney failure and in the intense heat of the desert, the exertion of flight was the last straw for her ailing kidneys. When the kidneys cease to work, urea is excreted in quantity in the sweat and the skin may become coated with a urea frost. Again, one would expect a horizontal pillar of salt...

There are quite clear indications of volcanic and seismic activity in the account of the flight of the Lot family: "Then the Lord rained upon Sodom and Gomorrah brimstone and fire from the Lord out of heaven; And he overthrew those cities and all the plain..." It may well be that Mrs Lot was overtaken by a *nuage ardent*. This is not a lovesick cloud but a cloud of superheated steam and poisonous gases which can travel at hundreds of kilometres an hour during certain types of volcanic eruptions. It is difficult to see how not looking back might have saved her, but one can imagine her sinking to her knees having suffered instant death from a lungful of the searing cloud and being covered rapidly by fine volcanic ashes to give the form of a somewhat truncated pillar of salt.

Not looking back may of course be allegorical, implying that she had not been averse to a bit of sin in the past. However, there are clear indications in the details of the story suggesting that, when it was written at least, it was seen as a factual account. There may of course be other explanations, including the supernatural actions of Jaweh. I will donate a prize of a telepathic therapeutic mind massage to the best suggestion received before Christmas.

(from New Scientist 15/9/90)

Doubts and certainties

THE RESULTS of a study of women attending the Bristol Cancer Help Centre have concentrated a few minds. The findings published in *The Lancet* last week may be baffling, but they are undoubtedly disturbing: women with breast cancer who attended the centre in addition to having conventional treatment fared very much worse than a control group of women who received conventional treatment alone.

The centre is famous for its vegan-style diet and holistic therapies, such as relaxation and the laying-on of hands. Innocuous as this might sound, the women who went there were almost three times as likely to have a tumour spread, and almost twice as likely to die, as the control group.

These results have caused distress—both to those who run the centre and, more importantly, to all those who have followed its regimen. But the findings clearly had to be announced urgently.

The explanations must be that there is something different about the women who attend the centre, there is something different about the centre itself, or there is something different about both. At this stage, there is little point in speculating about the effect of the diet, psychological factors or anything else; the question can be answered only by the study that the Institute of Cancer Research is still carrying out.

It was the Bristol centre that asked for the study in the first place. It was a courageous move, and unusual in the field of complementary medicine which has not always been eager to submit its work to scientific method. But the centre should abide by the rules of the scientific community.

First, it should not declare confidently—as it has done—that it does not believe it can be doing any harm. Secondly, it should try to be clear about what it is offering. People who go to the centre—a third of them women with breast cancer—go because they believe the centre might help them to beat the tumour and live. If the centre's real benefits are in making people's remaining life happier, then it should say so.

The only solution is more research. Disturbingly, the centre has meanwhile tried to act through publicity. It has sent a letter to all its clients asking them to write to the newspapers and "say something on our behalf". It declares that "all our gentle therapies are life enhancing" and ends by saying "You will, like us, know in your heart that we are doing nothing harmful." This tactic does it more damage than the results themselves. □

Books

The Occult Conspiracy. By Michael Howard. Century Hutchison, 1989. 196 pp. $45.95.

(Reviewed by Denis Dutton)

Move over parapsychology, parapolitics is here. Just as parapsychology shuns mundane physical laws to account for apparent cases of ESP or precognition, parapolitics does away with the usual explanations of historical events in terms of political and economic ambitions, personal greed, and military prowess. Instead, it offers a new level of historical understanding: an occult conspiracy of individuals and secret societies. Michael Howard, a British writer not to be confused with an eminent Oxford historian of the same name, has been studying parapolitics for the last quarter century. He claims that, though few of us are aware of it, since the dawn of recorded history the destiny of nations has been decided by "shadowy figures who have often been obsessed with the pursuit of power."

The story begins over 30,000 years ago, with "the colonization of Asia and Australasia by inhabitants of the lost continents of Lemuria or Mu." Evidence suggests "early contact between extraterrestrials and Stone Age Tribes in Tibet" and a priesthood which fled from Atlantis to Britan, South America, and elsewhere. Later on, the ETs are at it again with the Sumerians. Isis and Osiris in Egypt, the mysteries of Mithra, and founding of the first Celtic church in Glastonbury by Joseph of Arimathea all cited as proof of "the influence, of the occult tradition and secret societies on world history."

But it's a long way from Mu to you, and Howard spends much space explaining the influence of more recent secret societies on world events. The Nazis and the Vatican naturally figure large in the sorry, and there is a chapter on American history. Howard recounts the well-known fact that Franklin, Washington, and most signers of the Declaration of Independence were Freemasons. That Masonic ideas had very little to do with the political and economic development of the United States, even in these early years, doesn't deter Howard from doggedly pursuing his hypothesis of a sinister plot controlling American history. Though he may not have been a Mason, Abraham Lincoln, we were told, "possessed powers, including clairvoyance, or precognition, and the ability to heal the sick." Moreover, a neo-Rosicrucian named Pascal Beverly Randolph was a "close friend" of Lincoln. (I could find no mention of this close friend's name in two Lincoln biographies.) Randolph believed that ritual sex could be used to produce spiritual enlightenment. How this affected post-Civil War reconstruction is left to the reader's imagination.

Howard also explains that Lincoln's assassin, John Wilkes Booth, was shot dead by a soldier named Boston Corbett. It turns out that Corbett had previously castrated himself for spiritual reasons. In fact, he might possibly have been a member of the infamous Russian Skoptsi sect, whose priests castrated themselves and dressed in women's clothing! Corbett was later committed to an insane asylum, from which he escaped never to be found. Howard, of course, does not mention that thousands of soldiers were frantically searching for Booth, hoping to pump some lead into him, nor does he explain how Corbett's status as *castrato* helped him to be the lucky one. We just have to accept that it's all part of the mysterious but undeniable occult manipulation of global destiny.

On to the administration of Franklin Roosevelt, whose Agriculture Secretary and sometime Vice-President, Henry Wallace, had an interest in the occult. According to Howard, it was Wallace who suggested to Roosevelt that the symbol of an Egyptian pyramid with the eye of God appear on American currency. Wallace had contact with a Russian artist who had studied with lamas in Tibet while searching for the lost city of Shambala. Howard concludes the chapter by informing us that Wallace also supported the "pioneering work" of Dr. Andrija Puharich, the very investigator who later on fostered "the psychic talents of a young Israeli called Uri Geller." Thus the parapolitical history of America culminates in a bent spoon.

Laugh if you will, but this is a sad, sick little book. It will encourage feverish, ignorant people of the type who read the Book of Revelation and speculate how the Masons, the Templars, or Illuminati are, with the Vatican and the Club of Rome, involved in a satanic conspiracy to install a Jewish Antichrist and take over the world. It's not a pretty sight.

Innumeracy: Mathematical Illiteracy and its Consequences. by John Allen Paulos. Vintage Books, 1990. 18Opp. $23.95

(Reviewed by Bernard Howard)

"Math was always my worst subject" "I can't even balance my checkbook." "I'm a people person, not a numbers person." With these and similar quotations from people apparently proud of their weakness, Paulos starts his book, written out of anger and frustration.

Readers will note from the quotations that the book is American, but the message is for all. The message is that to be innumerate is to be intellectually crippled. It lays one open to pseudoscientific deceptions, both by others and by oneself. One can become obsessed by "amazing" coincidences, which Paulos shows are not amazing at all, but statistically inevitable. Innumeracy also misleads people into grossly inaccurate assessment of risk. Paulos tells how in 1985 Americans travelling abroad had a 1 in 1.6 million chance of being killed by a terrorist. This drove many thousands of them to stay at home, where 1 in 5,300 Americans died in car crashes. ESP, predictive dreams, astrology, UFO visitors, medical quackery and numerology, and more, come under Paulos's scrutiny, and are found mathematically deficient.

His conclusion, that the harmful effects of innumeracy result from inadequate mathematics teaching, has a lesson for us in New Zealand. This book is written in a bright, engaging manner, with a minimum of mathematics used to drive home the message. Numerate skeptics will find ammunition here useful in argument; innumerate skeptics, if such there be, will find their intellectual position greatly strengthened by reading it.

Life—How did it get here? By evolution or by creation? Watch Tower Bible and Tract Society of New York, 1985.

(Reviewed by P.A.B.)

If I had left school at the end of the Fifth Form and had no particular interest in science or religion I believe this book might well have persuaded me in favour of the Creationist cause.

For a start, the pictures make a big impression. The book is illustrated with plenty of attractive paintings. Many of them depict people—usually people who are smiling, good-looking and middle class or above. Adam, Eve, Mary, Joseph and Jesus resemble yuppies. (And why not?: the Church has to get its message across to yuppies too.) In some of the illustrations even the faces of the wild animals seem to express Christian joy.

More seriously, the book looks like a textbook. It has a hard cover. There are revision questions at the bottom of each page: "How many supporters of evolution have been deceived?" (p.90); "What problems arise in trying to establish Aegyptopithecus as an ancestor?" (p.91). At the back one finds an extensive list of references. A close examination of it shows the book's nameless author/s have striven to avoid being too academic: (from pages 123/124) the astronaut/now somewhat-disgraced senator John Glenn is quoted from *Reader's Digest*; physicist Stephen Hawking is quoted from *New York Times Magazine*; rocket genius Werner von Braun ("The natural laws of the universe...must have been set by somebody") is quoted from the *National Enquirer*. In one of the most surprising appearances, Malcolm Muggeridge is quoted from his review in *Esquire* of Bronowski's *The Ascent of Man* pontificating on the falsity of evolution. A good many of the popularisers of science and pseudoscience are represented. As well as Hawking, one finds David Attenborough, Richard Dawkins, John Gribben, Hoyle and Wickramasinghe, Robert Jastrow, Carl Sagan, and Lyall Watson. Many obscurer but no less brilliant individuals are quoted. Indeed, the book reads like a series of quotations so it must be reliable, musn't it?

The first eight chapters give the familiar Creationist arguments, but what is new is proof that the six days of creation are 'in accord with Science'. Chapters 9 to 14 give accounts of the argument from design, and what amounts to the Anthropic Principle, together with accounts of the marvels of nature such as animal instincts and the human mind, all of which are seen as evidence for a divine creator. Frankly, I find accounts of the marvels and mysteries of nature, even if superficially treated as here, irresistible.

The book's last five chapters show a change of emphasis. One particularly fascinating chapter, "Can you trust the Bible", gives as proof of the Bible's authenticity instances of the Bible anticipating scientific discoveries. Lucky guesses? Coincidences? Divine inspiration? No, more likely tendentious interpretations and translations. (I find I am increasingly encountering this argument in fundamentalist propaganda. A whole article could be devoted to it.) And it all ends with the apocalyptic vision of the Jehovah's Witnesses (the publishers of the book), Creationism v. Evolution virtually forgotten.

If I had left school at the end of the Fifth Form, I guess it is only this J.W. aspect that might have caused me to have misgivings. Yet I could have been convinced enough to support the Creationist claim to equal time.

However, I am a skeptic and, as it happened, when I received the book I had just bought David Attenborough's *Life on Earth*. I was disturbed to find *Life—How did it get here?* had quoted Attenborough's book three times. Concerned that I may have spent my money on an expensive Creationist tract, I checked the quotations. Two of them were most interesting.

On page 73, in the section "The Gulf between Fish and Amphibian", the book says:

> "David Attenborough disqualifies [as a connection between fishes and amphibians] both the lungfish and the coelacanth "because the bones of their skulls are so different from those of the first fossil amphibians that the one cannot be derived from the other."

The Watch Tower book ignores Attenborough's paragraph which immediately follows the quoted sentence. It begins:

> "However, there is a third fish found in the deposits of that early and critical period..." (*Life on Earth*, p.137).

Attenborough goes on to argue that Eusthenopteron is the link between fishes and amphibians.

On page 161, in the section "Awesome Feats of Migrators", *Life—How did it get here* considers the migration of the Arctic tern from the Arctic at the end of the northern summer to the Antarctic for the southern summer:

> "Rich food sources are available at both polar regions, so one scientist raises the question: 'How did they ever discover that such sources existed so far apart?' Evolution has no answer."

In fact, Attenborough does have an answer and he states it immediately:

> "The answer seems to be that these journeys were not always so long. It was the warming of the world at the end of the Ice Age eleven thousand years ago that began to stretch them." (*Life on Earth*, p.184).

I sought another quotation that could be easily checked and found one used to support the book's claim that mankind has existed for only 6,000 years. (The book, peculiarly, is happy with the idea of an ancient earth. Its exegesis of the six days of creation and how it is "in accord with science" also warrants an article of its own.) *Life—How did it get here?* quotes W.F. Libby, the Nobel Prize-winning pioneer of radiocarbon-dating on page 98:

> "The research in the development of the dating technique consisted of two stages—dating of samples from the historical and the prehistorical epochs, respectively. Arnold [a coworker] and I had our first shock when our advisers informed us that history extended back only for 5,000 years... You read statements to the effect that such and such a society or archeological site is 90,000 years old. We learned rather abruptly that these numbers, these ancient ages, are not known accurately."

Checking the article in the 3/3/61 issue of *Science*, which was the source of the quote, it is clear that Libby is not saying human society is only 5,000 years old. He is only referring to the

limits of recorded history—which he, perhaps surprisingly, was unaware of. In the article he shows how he was able to use his technique to date prehistoric human remains and artefacts. He says:

> "Last spring on Santa Rosa Island off the coast of California, friends of mine found a 6-foot skeleton, 10,400 years old to judge by the radiocarbon measurement of Broeker of Lamont Geological Observatory on some charcoal found next to the skeleton. This is the same 10,400 year date which now marks the early evidence of men in Santa Rosa Island; the Linden river site in Colorado: the Clovis site; the Lamus cave in eastern Nevada...; the Fort Rock Cave in Oregon...; and several other sites in the Americas."

There is nothing new about Creationists misrepresenting their sources. But to build up a case against Creationism the misquotes should be exposed[1]. However, when you study the book's account of the six days of creation and note its blindness to even what the Bible actually says, you begin to sense that it will be an enormous task.

Why is this deception carried out by people who see themselves as committed Christians and therefore honest and moral? Alas, none of the references in the Bible to truthfulness and lying seem to explain or, more usefully, condemn the practice. Is it too strong to call this dishonesty immoral? The fundamentalists, anyway, seem to think that so long as the faith is advanced, it's o.k. (see box.)

Skeptics interested in Creationism should read *Life—How did it get here?* It is an excellent piece of propaganda and inevitably raises the question of whether and how such propaganda should be countered.

(from New Scientist 6/10/90)

Notes

1. *The Pseudoscience Monitor* (Midwest Committee for Rational Inquiry) Vol. 2, No. 10 (October 1988), p.4, reviews *Life—How did it get here?* and points out several misrepresentations.

Humanist Error

The possible justification of the Creationists' practice of misrepresenting their sources has long puzzled me. I had a real sense of "Eureka!" when reading an issue of *Free Inquiry*, a humanist publication edited by Paul Kurtz, Chairman of CSICOP. But after checking the Biblical text it quoted I sent the following letter to *Free Inquiry*:

> In his article in your Spring 1989 issue, Harry Daum says that Paul "justifies the duplicity of his preaching by asking, 'Why not do evil that good may come?' (Romans 3:7–8)".
>
> The relevant sentence from the New English Bible actually reads, "Why not indeed 'do evil that good may come', as some libellously report me as saying?".
>
> Whatever one thinks of his preaching, Paul has been seriously misquoted by Daum.

The letter wasn't published. It is sobering to know that misquotation is not a Creationist monopoly.

The physics of a dowsing pendulum

DOWSING, the art of searching for water or minerals using a hand-held pendulum, may really work, according to an Australian engineer. Frank Irons of the University of New South Wales has analysed the chaotic swings of dowsing pendulums. His analysis shows that diviners might be able to detect ore deposits by the variations in the force of gravity they produce (*European Journal of Physics*, vol 11, p 107).

Dowsers rely on changes in the swings of their pendulum to tell them when they are standing above minerals or water. When the pendulum merely swings back and forth, this indicates nothing special. A circular motion, on the other hand, signals success.

According to Irons, dowsers report a characteristic sequence of changes in the behaviour of pendulums when they are held above ore deposits. First the direction of the swings starts to rotate, then the swings turn into an elliptical motion. Finally, the pendulum traces out a circle.

Irons explains this sequence by looking at the forces which drive pendulums. For instance, the steady swinging of a pendulum needs a rhythmic push from the dowser's fingertips to keep it going. Irons says this push can be so small as to be imperceptible even to the dowser.

When it is swinging steadily, the combination of the force of gravity and the drive from the dowser's fingers makes the pendulum sensitive to small changes in the forces acting on it. He believes that the transition from plain swings to the significant circular motion could then be caused either by a slight increase in the tempo of the dowser's rhythmic push or, more importantly, a small fall in the force of gravity. "An increasingly positive dowsing reaction . . . might occur either from an increase in the rate of oscillation of the fingertips . . . or conceivably (and this may be relevant in some instances) from a decrease in the acceleration due to gravity as might occur when traversing an ore body," says Irons.

According to Irons, it would be easy for charlatans to fractionally increase the tempo of their pushes to give the same effect as a change in the force of gravity. He suggests that further studies could identify whether dowsers use finger muscles to alter the pendulum's swing.

Irons' work follows a surge of interest in dowsing-type pendulums because of their chaotic behaviour. In some cases, the motion of a pendulum can become truly unpredictable, and the swinging has become a metaphor for chaos. William Bown

If undelivered return to:
Prof. B. Howard
150 Dyers Pass Road
Christchurch 2

In next issue:

Is our food poisoned?

Jay Mann with the lowdown on the real risks.

Changing Your Address?

We don't want to lose touch with members. Please tell the Secretary if you are going to move. It is depressing for our mail to you to be returned marked "Gone away, no address".