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Skeptics Bite Watchdog

Vicki Hyde

The Bent Spoon Award this year created more controversy than usual when it was awarded to Consumer *magazine. Why did we feel it necessary to bite our consumer watchdog?*

I was pleased when my copy of *Consumer* magazine arrived with a lead story on the natural way to health. I had had a survey a couple of months previously asking what I'd like to see in the magazine, and had replied that it was about time that an objective, hard-headed look at alternative medicine was done.

I was shocked and disappointed, therefore, when I found that the article did not meet *Consumer*'s usual high standards, but was a startling blend of unsupported claims and sketchy, superficial statements. I really didn't expect *Consumer,* of all publications, to produce something that so obviously deserved a Bent Spoon Award.

I wasn't alone in this. Many Skeptics, it seems, are subscribers to *Consumer* – I put that down to the institute offering consumer protection for one's physical environment, and the Skeptics providing such protection for one's mental environment. And it soon became obvious from the phonecalls and faxes that a large number of you (and plenty of interested observers) were as disappointed as I. What to do?

We embarked on what has been perhaps one of the saddest Bent Spoon awards – sad in its implications for Consumers' Institute and sad in that *Consumer*'s apparent endorsement of what has been described as "controversial, even bogus, treatments" will make it so much harder in the future to debate these issues factually.

So what was in the article that virtually forced us to challenge *Consumer* and take on ourselves a great deal of misinformed abuse from the Institute?

The article, in the July 1992 issue, was titled "The Natural Way to Health – your guide to acupuncture, osteopathy, homeopathy and other natural therapies."

"Natural therapies are popular and often effective," it opened, with the caveat that going to an "untrained" therapist can be a waste of money and may be dangerous.

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Skeptics Crush Baby Rabbits

The abuse of the Skeptics as "arrogant, narrow-minded bigots" by defenders of *Consumer* is annoying, but it doesn't yet surpass an art teacher who wrote an article for a Wellington paper in 1986. Overseas — or rather underseas — skeptics, he warned, had once tried to disprove ESP by going down in two submarines. In one, skeptics crushed baby rabbits to death, while in the other submarine skeptics measured the reactions of their mother to see if she was getting the terrible psychic vibes. Despite her pathetic shudders, delivered on cue, those awful skeptics *still* wouldn't believe in ESP!

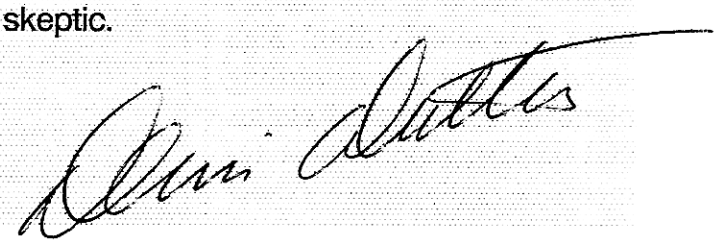
This malicious little fabrication might inure skeptics to other accusations. But it still comes as a shock — even for arrogant, bigoted, narrow-minded baby rabbit crushers — to be called *politically correct*. Carl Wyant suggests it (see p. 15), claiming that our failure to attack religion betrays a politically correct solicitude for the sensitivities of other cultures. Okay, we give in. If Carl can supply the Teheran postal address of Hashemi Rafsanjani, I'll send the good cleric the next *Skeptic*, along with Carl's address if the fellow has any further questions or lines of enquiry. And thanks for the suggestion, Carl.

A second blast comes from Frank Haden (see p. 13), who left the Wellington conference feeling that "the group is in grave danger of being subverted by believers." Maori-bashers and gay-bashers were subject to ridicule, he writes, along with the Round Table and Treasury incompetents. That there are no Skeptic defenders of Maori or gay-bashing is hardly disturbing, but Haden's charge of political bias does have some basis, given what both Jack Shallcrass and Brian Easton had to say in Wellington. Their talks were political, though this was unusual for a Skeptics conference.

A more important point of clarification for Frank Haden. The Skeptics are not interested in "universal disbelief," as he calls it. Radical Pyrrhonian skepticism is pointless, except to bait believers. Skeptics accept the intellectual credibility of modern science, not because they're by temperament obedient, but because of all the human enterprises of the last millennium, science is among the most successful. Skeptics tend to be what philosophic parlance calls pragmatists and "scientific realists": they view the world as existing independently of our beliefs and desires, having its own intractable nature. We're right about it, or wrong, but the world itself must determine that. We don't construct reality, we discover it. The Skeptics' call is not for disbelief, but for *evidence*.

To the contrary, it's one of the delusions of extremist political correctness that it can freely alter reality by relabeling it. It's not nice to be crippled, so we make it better by calling it "disabled," and when that seems tired we go on to "physically challenged." The names change but, alas, the condition does not, and you'd have to be optically challenged not to see it.

Still, if there are Skeptics worried about political correctness, they will be happy to know that our new leader, Vicki Hyde is (1) a woman of (2) Maori descent (Ngati Maniapoto). She's never crushed a rabbit, but watch out bunnies — she (3) owns a ferret, and he's said to be a dedicated skeptic.



Contributions should be directed to:

Dr Denis Dutton, School of Fine Arts, Canterbury University, Private Bag 4800, Christchurch

Please send articles on IBM-compatible disk in ASCII, Wordstar or Word Perfect formats, if at all possible. Disks will be returned if clearly labelled.

Please indicate publication and date of any clippings.

Final deadline for next issue:

November 15th

N.B. The production editor has a baby due on November 11th, so please be sure to get your material in EARLY!

However, after that brief warning, the article continued:

When it comes to health, even Mother Teresa, Tina Turner and Queen Elizabeth have something in common. They all get help from non-conventional medicine, and homeopathy in particular. The Royal Family has consulted a homeopath for several generations.

Apparently an elderly nun, a former rock star and a clan of inbred blue-bloods are sufficient to validate some very questionable practices.

It noted that some practices, such as osteopathy and acupuncture, have their own professional bodies and are used by conventional doctors. It recommended looking for a trained, registered practitioner. After all, it added, "the best non-conventional therapists can offer highly effective treatment."

This suggests that natural therapies are effective and the only caution necessary is to avoid untrained practitioners who may have got their fancy certificates through mail-order.

The article *did* say that radical treatment – such as having all your teeth pulled out – should lead you to seek a second opinion with your own GP or dentist.

It also ended with a case study of one therapist, pointing out problems such as the rejection of conventional medicine, promising cures and charging high prices. There was additional discussion of the Medicines Act, where it was stated, somewhat naively, that the Act limits what an alternative therapist can advertise or claim in the form of cures or treatment of certain illnesses. At least it did point out that the Institute was aware of cases where this law has been broken, but that it was not aware of any prosecutions.

Consumer recommended tightening up the Act and enforcing it more rigorously to "protect the public from untrained or improperly trained practitioners," again suggesting that one need have no concern if one's practitioner is *trained* in alternative therapies.

David Russell, chief executive of Consumers' Institute, vigorously defended the article by pointing to these disclaimers. Dr Gordon Hewitt, head of the health professions school at the Central Institute of Technology and a Skeptic, in debating with Mr Russell on National Radio, compared this to two thin slices of bread, surrounding some very dubious meat.

It is obvious which part will be remembered, particularly by alternative therapists keen to cash in on the very supportive statements within the body of the text.

So what smelled rotten?

Acupuncture and Osteopathy

The acupuncture section talked about the flow of "life energy force" throughout the body, and that illness follows when the flow is blocked. It mentioned acupuncture's successful use to treat a variety of complaints including headaches, sports injuries and muscular inflammation.

It supported this with the statement that stimulation of the acupuncture points releases endorphins, and that the World Health Organisation lists 71 disorders successfully treated by acupuncture.

British & Irish Skeptic, Donald Roum

In the Bent Spoon press release, our own Dr John Welch – himself trained in acupuncture – said that the section paid no regard to the large and growing scientific literature showing that it is clinically ineffective for diseases the magazine lists. There is now a Skeptic Truth Kit on acupuncture available for those interested in reading further about this.

The osteopathy section talked about the large body of scientific research behind the therapy, implying that its efficacy has been established but avoiding stating this definitively.

One Skeptic, in writing to *Consumer* independently before the award was announced, said that such a statement was exactly the type which *Consumer* has criticised advertisers for making.

"If there is any scientific basis for so contentious a therapy as osteopathy, then you owe it to your readers to explain it," he added.

Consumer quoted a 1986 survey by its UK counterpart which showed that 82% of respondents who had visited osteopaths claimed to have been cured or improved by the treatment.

As one who is highly skeptical of survey techniques, I find the wording of this interesting. "Respondents" suggests that the responding to the survey was voluntary, which immediately skews results.

The other interesting point to note is that the material in the Skeptic Truth Kit on chiropractic explains that any form of back manipulation can produce apparently good results, but more from the nature of back pain itself than from actual efficacy. That is, pain is often a chimeric thing, disappearing of its own accord.

Once again, registered osteopaths are recommended as providing some form of protection, but the article does also mention that "improperly trained people advertising their services as osteopaths" can cause serious problems. There is no control over the use of the term "osteopath" – the implication is that someone with little or no training can use it legitimately – but this important point appeared not to be worthy of comment or criticism by our consumer watchdog.

Homeopathy

Consumer said that "many [homeopathic] remedies work only in specific cases" and that "a few remedies can be used widely." There was no supporting information for these blanket claims. The institute was much more rigorous in recent tests of cough medicines, but did not subject homeopathic claims to the same criteria. Why not?

The magazine said that a homeopath will find the right treatment by conducting a detailed interview. Yes, but this is because homeopaths believe that certain extracts "match" certain personality types. Oyster shells, for example, are said to suit patients who are fearful and who feel better when constipated. This sort of dubious anthropomorphic alchemy was not mentioned.

While it may initially seem reasonable that such extracts could have some physiological effect, none of these substances actually come anywhere near the patient. This is because homeopaths believe that a preparation becomes much stronger when highly dilute – something akin to having sweeter coffee by putting less and less sugar in it.

Homeopathic preparations are diluted in 100-fold steps, commonly 30 times, but sometimes as much as 120 times. This is like stirring a teaspoonful of sugar into the Pacific Ocean – only that would give you a much higher concentration than that of most homeopathic solutions.

And how did *Consumer* report this? It said merely that the substances are "diluted in a particular way many times". Hardly indicative of the true situation. If I tried selling a microwave that worked without being plugged in, I am sure that *Consumer* would be more than a little suspicious.

Even homeopaths admit that there is no substance in their solutions. They believe that shaking the solutions during dilution will "potentise" them, causing physical changes in the water's structure so that it remembers the substance long after it has disappeared. Presumably water at the base of any waterfall would be incredibly potentised through being violently shaken and thus highly dangerous in a homeopathic sense.

There is no physical mechanism for changing the basic molecular structure of water in this fashion. *Consumer* used the term "potentise" in its passing reference to the dilution process, but

did not mention the idea that shaking water gives it these fantastic properties.

The magazine did note that the "scientific evidence is not conclusive," but quoted only one positive study without any details, ignoring that a great many scientific trials, and basic science itself, are all against homeopathy.

In fact, the literature review which *Consumer* quotes is by no means as positive as suggested. The article says that the Dutch review of 107 (it was actually 105) homeopathic trials showed that 81 indicated that homeopathy worked and 21 did not. *Consumer* did not quote the review's conclusions which said:

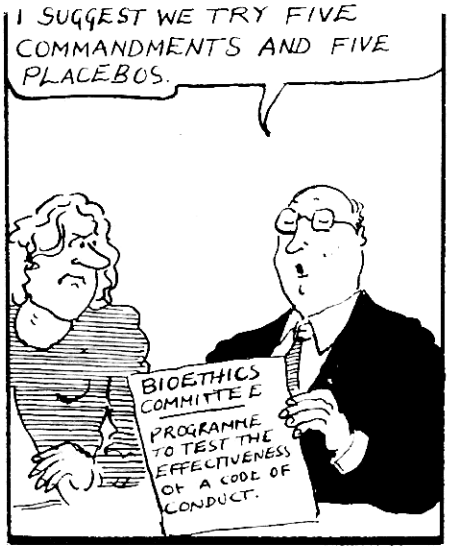
At the moment, the evidence of clinical trials is positive but not sufficient to draw definitive conclusions because most trials are of low methodological quality and because of the unknown role of publication bias.

The doctors themselves noted that the most poorly performed trials produced the most positive results, and said that the inferences seemed to be over-optimistic at times. They also voiced concerns about the failure to submit negative results for publication. In addition, the most important positive trial in the review was reworked by the researchers involved and was found to show no firm evidence for the efficacy of homeopathic treatments.

You'd only know about this, however, if you had access to back issues of the *British Medical Journal* (Volume 302, 9 February, 1991; 316-323; 2 March, 1991; 529; 23 March, 1992; 727).

Consumer also said that "homeopathy is taken seriously in many European countries", as if this was enough to endorse it. Certainly homeopathy deserves to be taken seriously because serious problems can result from it, particularly with regard to the sometimes disastrous consequences of the anti-orthodox attitudes which are common to many alternative medicine followers.

Last year, a Wellington nurse refused antibiotics for her baby's earache, preferring to have it treated homeopathically. Two weeks later, after a number of unsuccessful treatments, the child was taken back to her regular doctor who had her hospitalised immediately. Both the doctor and the hospital's paediatrician had great difficulty in persuading the woman to allow conventional medicine to be used. It was all too late anyway, as the baby died. (See *Skeptic* #22 for Coroner's Court report.)



Presumably the way to avoid this is to find a good homeopath, and *Consumer* provides addresses for finding ones with the "best" qualifications. It is to be hoped that those qualifications include learning how to recognise when real treatment is needed.

Other Therapies

Consumer then goes on to briefly look at other popular therapies which one can learn in a weekend or through books. These therapies are "often very gentle," *Consumer* says. So's my ferret, but he can be very dangerous too....

Aromatherapy, using plant oils in massages and baths, is said to help insomnia, anxiety, boils, rashes, acne, colds and chest infections. The magazine suggests reading a book or attending a workshop before embarking on this form of treatment, but notes that it is one of the easiest natural therapies to use yourself.

British nurses use lavender oil to massage patients and help them to relax, *Consumer* tell us. One wonders if the natural therapeutic properties are really anything to do with the specific type of oil used – surely the massage itself has a part to play?

A form of massage, reflexology, is said to help in psychological as well as physical areas. This may well be so, but is it really because of direct links between the extremities and other body organs and tissues, as suggested? There is no anatomical basis for many of the claims of reflexologists, but this is not mentioned.

Consumer does mention that "the crystalline deposits that reflexologists say they

can feel has not been scientifically proven." This implies that there is some real, substantive basis for these claims, and final, conclusive proof is all that is lacking. In fact, the overwhelming evidence of anatomy, physiology, radiology and so forth suggests that such claims are entirely without foundation.

Again, *Consumer* uses a single positive example which it calls "intriguing" to suggest that reflexology may be an effective diagnostic aid. Surely Consumers' Institute, of all organisations, recognises that one personal anecdote – printed in an alternative health magazine to boot – is not adequate. I very much doubt that they would let a manufacturer get away with extraordinary claims "backed up" by just one happy customer.

In the section on herbal remedies, the article stated that "few manufacturers can afford clinical trials of their product." What amounts to a grave omission on the part of people selling untested "medicines" is passed by with no comment.

Does this mean that Consumer's Institute would find it acceptable that clothing manufacturers save money by ceasing to test their products for fire resistance? Struggling toy manufacturers no longer checking to see whether their latest product can be swallowed by toddlers? Surely not. Yet herbalists are apparently permitted such gross irresponsibility towards the consumer.

The section goes on to say that traditional folklore rather than scientific evidence will often be the basis for selecting a herbal treatment. *Consumer* then says that a better option is to go to an experienced herbalist, implying that they *won't* be working on traditional folklore lines.

Certainly, as the article says, some modern drugs are based on plant extracts, but these are compounds which have been rigorously tested through clinical trials, not a mish-mash of "natural" ingredients. *Consumer* suggests that herbal experts will protect you from dangerous overdoses or inappropriate uses.

I wonder whether people will take the trouble to check whether their local health shop owner is a member of the New Zealand Natural Health Practitioners Accreditation Board before stocking up on their comfrey tea. Given comments I have heard from nutritionists and other health professionals, as well as personal experience, I am not particularly sanguine about the education or expertise of many health shop owners.

Would Consumers' Institute find it acceptable that clothing manufacturers save money by ceasing to test their products for fire resistance?

Missing

Perhaps one of the most disappointing things about the article was that there was no discussion of one of the primary ways in which many of these alternative therapies work – the placebo effect.

It is generally recognised that a significant proportion of medical conditions will get better with time, regardless of whether alternative or orthodox remedies are prescribed. Combine this with the provision of some form of treatment and you have a very powerful, though not necessarily valid, conjunction of "treatment" and "cure".

In addition, people will respond to someone taking an active interest in their condition, and healers take advantage of this, whether by design or accident. The intense personal focus of alternative therapies has a strong advantage over the generally perceived impersonality of much of conventional medicine these days.

Yet there was no discussion of this vital point in the *Consumer* review. Nor was there any discussion of what is meant by "natural," bar the note in the herbal discussion that suggests it involves being untested.

I wonder what *Consumer* would say if I sold "natural" iodine, extracted lovingly from organic kelp, and charged a small fortune for it, claiming it is somehow more "natural" and healthier for you than the synthesised version....

It will be quite some time before many of us will be able to see *Consumer*'s advertising boast – "Get the facts you need from the source you can trust" – without feeling a little betrayed.

Vicki Hyde is chairentity of NZCSICOP and editor of the *New Zealand Science Monthly*.

Skeptics lash Consumer report

By ALICE TAYLOR

A Consumer Institute article on alternative medical therapies encourages ineffective treatments, the New Zealand Skeptics Society says.

The group's medical adviser, Dr John Welch, said Consumer's July cover story on acupuncture, homeopathy and osteopathy had not fully analysed the bogus practices and lacked scientific evidence.

"They have let themselves down. I expect the same standard of investigation which they usually produce," said Dr Welch, a medical practitioner and former acupuncturist. After two years practising acupuncture he realised the needles could be placed anywhere effectively as long as it was done confidently.

"Any sort of positive energy will help a patient. Doctors should use that more by explaining things and not just writing out a prescription, and bogus practitioners charging huge sums of money should use it less."

Most natural remedies worked as a placebo, he said. The article did not inform readers that many homeopathic potions were pure water, he said. Homeopathic dilutions were so massive the probability of getting one molecule of the healing substance in the potion was minute.

If conventional drug manufacturers marketed water the Consumers Institute would expose it as a scam, he said.

Scientific literature was available on the ineffectiveness of acupuncture, which the article had ignored, he said.

Consumer Institute spokesman David Russell said the article did not endorse the remedies, but was a fair report describing natural remedies, backed by overseas research.

"It is inaccurate criticism. The conclusion we draw is that there needs to be protection for people from the cranks and rip-off merchants."

The article stated homeopathy was accepted by conventional medical practitioners in Europe and Britain, with results of trials in Holland, he said.

"We presented the facts. If Mr Welch can show me conclusive evidence that distilled water is being sold or that we haven't covered the issues entirely, I will happily publish it."

Sir, — The article under the heading "Skeptics deride medical report" (Mail, July 29) is a scurrilous display of incredible and arrogant ignorance. In fact the report in Consumer was a balanced and careful summary of the ever-increasing interest in services supplied by alternative medicine. Many orthodox medical practitioners are now turning to alternative methods to alleviate pain and suffering and learning to understand and respect knowledge, in many instances, thousands of years old. It is unfortunate we have in our society those who suffer from tunnel vision, unable to understand we humans have much to learn and can do so only by respecting other ideas and opinions. It is suggested the Skeptics should rename themselves "the Bigots".

A. F. WAKE
Stoke, July 30.

} Anyone game to take this on?

Consumer magazine wins 1992 Bent Spoon Award

CHRISTCHURCH

Consumer, magazine of the Consumers' Institute, has won this year's Bent Spoon Award for journalistic gullibility for an article about alternative medicine.

Announcing the annual award, the Skeptics, a committee that scientifically investigates claims of the paranormal, described the article in the magazine's July issue as "absurdly gullible."

Spokesman Denis Dutton said Consumer had a reputation for tough-minded scepticism and analysis of faulty products and crooked sales pitches.

"The magazine now virtually endorses questionable medical therapies.

"This is the most ignorant and misleading story we have ever seen in Consumer," he said.

"The article states that Tina Turner and the Queen use homeopathy, but it fails to inform readers that many homeopathic potions are pure water and nothing else.

"If a conventional drug manufacturer were to market water as a treatment for a disease, we'd expect Consumer to expose it as a scam. Call that bottle of water a homeopathic medicine, and the magazine endorses it," Dr Dutton said.

A Skeptic medical adviser, John Welch, said the article suggested homeopathic preparations could cure fevers.

"Anyone who takes a child to a homeopath to be treated for a fever, as Consumer suggests, may be risking that child's life," he said.

Last year, a Wellington child treated by a homeopath for a serious infection died.

Dr Welch, who is trained in acupuncture, said the magazine discussed acupuncture "without the slightest regard to the large and growing scientific literature showing it is clinically ineffective for diseases the magazine lists."

Dr Dutton said the article "squanders the institute's hard-earned trust.

"The public deserves better."

The Skeptics' Award for journalistic excellence has gone to the Holmes television show for an expose of a bogus cancer doctor. The programme examined how a Chinese herbalist and self-proclaimed psychic healer defrauded ill and dying patients of thousands of dollars.

Dr Dutton said Consumer could learn lessons from studying the programme.

The institute's executive director, David Russell, said the Skeptics ignored the last two pages of the five-page article that debunked an alternative medical healer.

"I think we might even start an award of our own and present the Skeptics with a magnifying glass. I suggest that they read the article in detail," he said.

Many people had some faith in alternative medicines and the article was an attempt to point them in the right direction.

People who were physically or medically sick should see doctors, Mr Russell said. — NZPA

Consumer Bites Back

Vicki Hyde

Not surprisingly, the awarding of the Bent Spoon to *Consumer* magazine saw a vigorous defence mounted by the Consumers' Institute.

David Russell, chief executive of the institute, has said on a number of occasions that he considered that the institute had been "publicly defamed" by the Skeptics, and that comments concerning the article were "extreme and defamatory."

In the early days following the announcement, Mr Russell debated the issue with Dr Gordon Hewitt on *Morning Report*. He laughed off Kim Hill's question of suing NZCSICOP over the alleged defamation.

The impression gained from Mr Russell during the debate was that the magazine had deliberately taken a soft line on alternative therapies because many people believed in them. Dr Hewitt picked up this point and challenged it by asking if Consumers' Institute would then ignore taking action against a dangerous toaster merely because a lot of people used it.

The analogy was rejected, not answered. Mr Russell continued with this line elsewhere, stating that "given the strong public interest in [natural therapies] and surveys which indicate a large degree of satisfaction with natural therapies, we cannot see anything wrong with explaining to our members what is involved in a few of the more commonly-used therapies."

One could argue that people were strongly interested in some of the various pyramid schemes that have appeared on the New Zealand scene, and that many were very supportive of them. This does not mean that they should be left uncriticised. In addition, NZCSICOP would have welcomed a *real* explanation of just what is involved in the therapies *Consumer* covered, but this was not done, as an examination of the article's text clearly shows.

An astounding statement was made by David Hindley, research writer for the chief executive, in response to a letter of complaint made independently of the Skeptics. In it, Mr Hindley said:

If you are aware of recent research which conflicts with our findings, we would be very grateful if you could pass on details to us.

This suggests that *Consumer*'s in-house research team came up with no such material, a suggestion which has extremely disturbing implications for the thoroughness of research and preparation put into the magazine's material.

One point mentioned in the radio interview which, unfortunately, was not taken up was the suggestion Mr Russell made that alternative therapies can't do anyone any harm, implying that one need not be concerned about them. There's a dead baby in Wellington to disprove that. The unmonitored nature of alternative therapies and therapists means that there is very little hard data on the harm being done. Cases which end up in Coroner's Court, however, cannot and should not be ignored.

The idea that "it's all harmless anyway" has been repeated in other areas where Mr Russell has said that "our research into natural therapies indicates that, so long as the practitioner has the best training available, potential side effects are limited." It would be startling to find direct side effects from water solutions and sugar tablets, foot massage or sniffing essential oils.

Mr Russell is apparently unaware that the vast majority of alternative therapists in New Zealand have very little in the way of actual medical training, and citing examples of such training from Britain or Europe is hardly applicable.

One could also question whether there is any benefit in training in health-related practices which have no substantive evidence to support them. No matter how much time one spends training as a homeopath, this has no effect whatsoever on the fact that the materials used are dilute water and the methodology used medieval.

Nevertheless, Mr Russell states that he has "no qualms" about stating that there are "good" and "bad" homeo-

paths based on the level of training required in Europe.

A typical response has been to attack conventional medicine as not being adequate in some areas, in the apparent belief that adopting untested, unproven, undemonstrated therapies is somehow an answer to perceived inadequacies in orthodox medicine.

The language became stronger following the NZSCICOP conference, when renewed media interest was shown in the Bent Spoon Award. The *Dominion* reported Mr Russell as calling Skeptics "narrow-minded bigots." *[No, we're not suing for defamation either.]* The report went on to quote him as saying:

In the 19th century, they would have been dismissing the discovery of penicillin because they did not have the evidence to prove it.

We can certainly agree with Mr Russell on this point, given that penicillin wasn't discovered in the 19th century – it was first found in 1929 and not isolated until 1940....

However, questions of historical accuracy aside, the discovery and development of penicillin provides a perfect example of the sort of practice which Skeptics worldwide applaud. It produced miraculous cures but, unlike those of a more questionable nature, it did so under tested, controlled conditions time and time again. Within a few years of its mass production, penicillin had demonstrably saved thousands of lives, and it continues to do so.

The significance of penicillin was recognised in double-quick time, with the scientists involved awarded Nobel Prizes within four years of the substance's purification. We would be interested to hear of Nobel Prizes, or any other recognised scientific awards, made for the "discoveries" of alternative therapists.

What is more, the incredible benefits of penicillin led to the search for, and discovery of, other antibiotics which have also made obvious and effective contributions towards the good health and longer lives of a large proportion of this planet's population.

What homeopathic remedy has had similar success? *Consumer* said that these remedies stimulate the body to heal illnesses, but there has been no clear evidence of this in the 200 years since their invention.

Mr Russell used the same analogy in the most recent issue of *Consumer* (September 1992), correcting his dating lapse. In this editorial, the Skeptics were accused of having a "surprisingly poor understanding...of how scientific knowledge is developed, and an even poorer ability to read properly."

We feel that, on the contrary, *Consumer* and, by association, Consumers' Institute have displayed an ignorance of basic scientific principles and scientific history, an unjustifiable defensiveness which has made them unwilling to admit any form of deficiency, and a degree of credulity unacceptable in a consumers' protection organisation.

The editorial said that Consumers' Institute is sending a magnifying glass to NZCSICOP to redress our reading problems – let's hope that in the future their errors are so subtle we *need* the magnifying glass!

Great Skeptics of History, No 5

Arthur Wilson discussed the skeptical sentiments of James I in his 1719 work, "The Life and Reign of James I."

He was King in Understanding, and was content to have his Subjects ignorant in many things: as in curing the *King's-Evil*, which he knew a Device, to aggrandise the Virtue of Kings, when Miracles were in fashion; but he let the World believe it, though he smil'd at it in his own Reason, finding the Strength of the Imagination a more powerful Agent in the Cure, than the Plaisters his Chirugions prescrib'd for the Sore.

Cold Reading for Fun and Profit

Hugh Young

After seeing a demonstration of cold reading at the 1989 Skeptics Conference I thought this was something I could have fun with, so I boned up on the list of commonplaces provided:

* Most men have an unopened bottle of aftershave in their bathroom cabinet

* Most women have kept one of a pair of earrings after losing the other

* Most people can remember with embarrassment being singled out at school, etc...

I tried it out on some friends and they were quite impressed, so I put it to practical use at the annual Lesbian and Gay Fair.

In 1990, I was Signor Momoque (Momoka was a name I was given on an island in the southern Solomons in 1975); in 1991, Madame Momoque; and in 1992, Swami Momokananda.

The Momoques offered gestalt palm reading using both palms. The patter involved "integrating the emotional and intuitive left and right sides of the brain" – or right and left, whatever. The Swami offered chakra reflexology, with the wrist, the ball of the thumb and the five fingertips corresponding to the seven "chakras" spaced along the spinal column.

To prepare the client, I used incense, a "crystal" (glass) ball dimly illuminated from below, a "crystal" (cut lead glass) hanging from a thread, and three stones, agate, quartz and greenstone. I "cleansed" the stones and the seven "chakra points of the hand" with drops of water from an elegant little bottle, and invited the client to choose one stone. ("Ah, you chose agate/quartz/greenstone. This indicates firmness/clarity/that you are close to the land...")

This preparation is an important part of sucking the client in. It doesn't matter too much just what you do, as long as you do it with some confidence. What the client assumes is the confidence of a skilled practitioner is really just the confidence of a little practice.

At first, I took myself too seriously, agonising over every statement. I found (as others have) that my greatest ally was the client and their sometimes pathetic, even desperate desire to believe, and to re-interpret what I said in the light of their condition.

Some lesbians thought this presentation was racist (an Indian client did not, and the turban and bindi caste mark were provided by a practising Hindu). Next year I will give the human race away, and either Morka, the friendly killer whale, will offer lateral line meridian readings, or MOKA-7, the robot, will practice cybernetic phrenology. (By mixing two disciplines, I will protect myself against criticism from "experts" in either).

What turned these into demonstrations of practical skepticism (and not your average fraud) is that at the end I gave each client an interesting-looking spill, with strict instructions not to open it until a particular time (well after the fair was safely over).

Two clients later told me they counted down to the correct moment before opening theirs. One of these is a well-known Wellington naturopath and New Age person who was vastly impressed with the accuracy of my reading.

Inside, the spills said:

CONGRATULATIONS

You have enjoyed a "cold reading." I have no special powers, and it was not your hand that told me anything. I used some generalities that are true for everyone, fished a bit, and guessed what I could from your clothes, manner, walk, etc.

The same techniques could be used equally well in the guise of crystal gazing, astrology, tea-leaf reading, etc.

In return, I hope I encouraged you to feel good about yourself (and I hope you go on feeling good about yourself). Isn't that worth $2 to the Aids Foundation?

By asking clients to "cross my palm with gold" (and thank heaven for the "gold" $1 and $2 coins!) I raised about $30 for the Aids Foundation at each fair – as well as spreading a little light where it is most needed.

Hugh Young is a **real** psychic who channels Socrates, Alexander the Great, Richard Lionheart and Leonardo da Vinci, only he won't admit to it.

Equine Pseudoscience

Russell Dear

Do horses really have a distinct set of personality types or is it just a load of equine excreta?

There are times when I think all taxonomy is pseudoscience. It certainly seems to have a predisposition that way. For example, people have been classified by their star signs, the pattern of whorls and loops on the skin of their finger tips, their birthplace, shape of head, colour of skin, handwriting, and so on. Some of these are without doubt useful in given situations, others seem arbitrary to say the least.

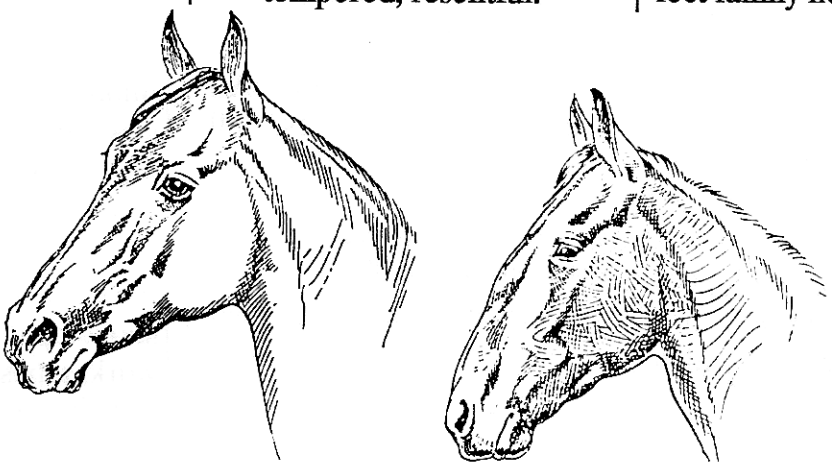
When it comes to classifying species, we have a workable system based on evolutionary principles. It is well understood despite at times being difficult to apply. However, how do we fare classifying individuals of species other than our own?

Take horses for example. Why horses? Well, for me they are an ever-present factor in the equation of life. My partner and three daughters are besotted with the creatures.

On any non-working day they can be found washing them, grooming them, dressing them, undressing them, riding them, talking to them (or about them), or any combination of the aforementioned.

Consequently, there are a lot of horse books in our home. Recently I picked up one entitled *Professor Beery's Illustrated Course in Horse Training; Book 2 Disposition and Subjection* (published in 1962). What a load of...pseudoscience! It begins with a classification of horses into four types by disposition:

- ☐ 1. Teachable, kind.
- ☐ 2. Stubborn, wilful.
- ☐ 3. Nervous, ambitious, determined.
- ☐ 4. Treacherous, ill-tempered, resentful.



Head type 1

Type 2

Now there's a nice piece of anthropomorphism. Apparently, according to Professor Beery, each kind of disposition is indicated externally by certain lines of the head.

Type 1 is characterised by a kind eye, a deep forehead and plenty of room between the ears.

Type 2 is recognised by a bulge below the line of the eyes and a heavy jowl.

Horses of type 3 have their eyes set far out to the side and forward, and are favoured with forehead furrows.

Type 4 have a prominent forehead (indicating treachery), a dished face, small eyes, and long narrow ears which are hairy inside. Some of these descriptions sound more like people I've met, but that's another story.

Professor Beery assures us that type 1 horses are worthy of the utmost confidence when trained, and make perfect family horses.

The type 2 variety take a long time to train and have no feelings when their senses are aroused (whatever that means).

Type 3s act through fear and are liable to shy, or run away. They surrender unconditionally.

Type 4 resist like bulldogs and are liable to kick, bite and bolt.

The impact of the theory is somewhat lessened by a strong implication that through good training a horse can overcome these natural tendencies. After all, as Professor Beery says,

"Because a horse has certain natural inclinations there is no reason why he should be spoiled or vicious. Many a man has become a public

benefactor who would have been a criminal, if he had allowed his natural desires to govern him."

Horses are not seen as being of one type. They may combine characteristics of two or more types. They can be described as being, for example, 3-2; a combination of types 3 and 2 with 3 predominating.

An added complication is the fact that the lines of the head may not be immediately obvious, the eye may deceive. In many cases a horse's true disposition can only be ascertained by running a hand down its face.

No head can be fully read from any one angle. The book describes many combinations of types viewed from the side, top, front and bottom of a horse's head. Apparently some characteristics can only be discerned when lying flat on your back scrutinising the underside of the horse's jaw.

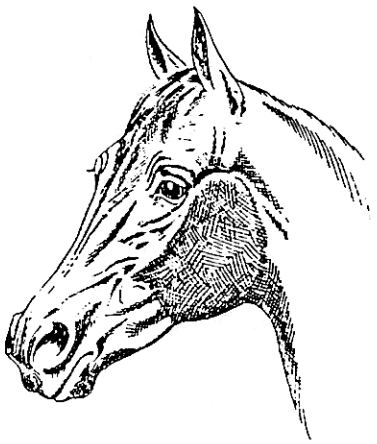
An interesting paragraph describes how to classify mules, the majority of which are said to be 3-2 types, all having a smattering of 4. Professor Beery exhorts us to "Never allow a mule to get the better of you."

Knowing that Arab horses have typically a dished face, I was intrigued to see how the author would handle their classification. He tells us not to let this one characteristic cause us to misjudge the horse's disposition. Apparently, only an exaggeratedly dished face indicates that the Arab is treacherous, ill-tempered and resentful.

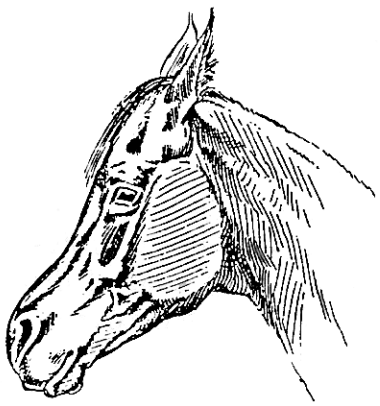
This is not a review and I am not recommending that you buy the book (although it is available from the Beery School of Horsemanship, Pleasant Hill, Ohio, US). It's just that a lot of the style seems familiar.

What do you think? All those in favour say "Yes." All those against say "Neigh."

Skeptic Russell Dear horses around in Invercargill.



Type 3



Type 4

Randi Replies

This message from James Randi came off USENET, courtesy of Phil Anderson.

Date: Fri Aug 7 1992

From: geller-hotline @ssr.com (James Randi)

Things are quiet on the Geller vs. Randi front. Mr. Geller's lawyer is no longer working for him due to a problem. My lawyers are working hard, with surprises to come shortly. The James Randi Fund is sagging a bit, as victory seems more apparent. CSICOP is exultant, since they can now anticipate being granted specific sanctions by the judge. I hope they can recoup their losses. I have a TV crew coming in here tomorrow, interviews and photo dates next week. This case, and another investigation I have coming up, will make a lot of news.

The Italian TV people have granted me rights to show tapes of Mr. Geller at work, tapes in which certain very interesting things show up. The claim had been made that copyrights to the video material would prevent my using these tapes. Not so. I'm free to use them. The co-operation of the media has been very gratifying, and a MAJOR television show will be doing a full hour on me and my battle.

So, things are improving more every day. Thanks to all you folks who have supported me so willingly, we can anticipate an earlier victory. Stay tuned to this station!

JR

NEWS FRONT

There's only one person to blame for the mass killing

ONLY one person committed the Masterton massacre. Social welfare workers and others who ignored the loud warning signs need sacking, but they are not guilty of murder.

The real culprits are those responsible for generating today's warm-fuzzy-feelie-caring-supportive environment, which led Ratima to see himself as a victim, to consider he hadn't had a fair shake from a community which fell below the politically correct standards of "caregiving".

Apart from the scale, there was nothing remarkable about the killings. They were the work of an uncomplicated man, beside himself with jealous rage: if I can't have the kids, no one else will.

There was an added factor, even more politically correct: he had lost face, or *mana* as it is known these days.

It is wrong to compare this premeditated, logical massacre with Aramoana and Paerata. David Gray and Brian Schlaepfer were deranged. We should look instead to the double shooting at Kaiaua. There, too, a perfectly sane young man felt he had lost *mana*. The locals hadn't been supportive about his anti-social habits, so he killed a couple to teach them a lesson.

Taking communal responsibility for Ratima's terrible crimes will make us feel virtuous, in tune with all the re-

FRANK HADEN

ceived wisdom about ambulances at the bottom of the cliff and safety nets for the slobbering unfortunates.

And I'll lay odds right now that we'll have more crimes of outrageous revenge committed by men encouraged to think that the world owes them a living and they are entitled to kill when the community "lets them down".

POLITICAL correctness gave me a hard time, too, at the Skeptics' conference, where I sought the company of people who doubt all statements.

Though I've never believed in anything since I was a teenager, I learned long ago that the only way to have a quiet life is to make allowances for gullibility.

Superstitious humans look at the universe, decide that they couldn't build it, and invent an elaborate framework

In today's warm-fuzzy-groping-caring-supportive environment, there was every reason for Ratima to feel aggrieved

of belief based on the idea that a bloke with a long white beard set it all up billions of years ago and is now patiently waiting for it to wear out, passing the time by checking our behaviour.

We don't like the idea of dying, so we decide we're special, we're not really going to die like all the other animals. We dream up various forms of heaven and hell and invent intangible spirits, souls, life forces or whatever, collected from our mothers and carted around somewhere inside us throughout our lives, to keep our personalities going after our bodies die.

Having surrendered our deductive capacity this far, it makes sense to carry on and believe in astrology, race, luck, *mana*, evil, chiropractic, ghosts, iridology, magic crystals, Rudolf Steiner's magic cow-horn farming, predestination, bent spoons and the future.

We believe so powerfully in our divinely ordained way of life that at the drop of a hat we'll kill heretics, atheists, communists, capitalists and people whose unacceptability is identified by having a different skin colour. All because we are unquestioning, undoubting, unsceptical.

Here is where the Skeptics should come in, demanding that the proposers of way-out notions show them the evidence, put up or shut up.

But here is where I have to outscepticise the Skeptics, and warn them that their organisation is in grave danger of being subverted by believers. I found too many speakers and questioners shared not only beliefs, which was bad enough, but politically correct beliefs.

The Business Roundtable, wet-behind-the-ears Treasury incompetents, Maori-bashers, gay-bashers and male chauvinist pigs were by common consent a primary source of ridicule.

I'm sure this is not what the founding fathers of the group were on about. The real Skeptics, the committed doubters, need to screen out the wild-eyed ones, make would-be members sign affidavits of universal disbelief before they let them join. Otherwise these intellectual fifth-columnists will wreck everything.

Homeopathy

Sir,—One of the main criticisms by the NZ Skeptics of the "Consumer" article on alternative therapies was its omission of vital information. S. I. Y. Proctor (August 6) follows the same path when he states that "homeopathic medicines are not just distilled water! Each medicine is the result of a special dilution procedure using a natural substance with water." What your correspondent and "Consumer" have failed to highlight is that "the special dilution procedure" is in many cases taken so far that not even one molecule of the original substance remains in the water. Hence the Skeptics' observation that "many homeopathic potions are pure water and nothing else". Some proponents maintain that shaking the preparation at each step of dilution "potentises it" with a "special energy", or that the water somehow "remembers" the original substance. These "hypotheses" lack any scientific credibility. The Skeptics simply maintain that people contemplating alternative therapies should be able to make informed judgments. Unfortunately, the "Consumer" article contributes little in this regard.—Yours, etc.,

WARWICK DON.
NZ Skeptics.
September 15, 1992.

Determined Eru to see faith healer

The Dominion 8/9/92

By PETER BIDWELL

INJURED Upper Hutt hooker Syd Eru is so keen to play in next Sunday's Wellington first division rugby league grand final he is going to seek the help of a Napier faith healer.

Eru fractured his right wrist in last Sunday's Double Brown semifinal win against Randwick, which threatened to sideline him for six weeks.

Instead of accepting that, and having the wrist stay in a cast for at least three weeks, Eru preferred to try other treatment.

"I want to keep playing and I can't if the wrist's in plaster,' said Eru last night. I suppose I'm looking for a miracle."

Eru said he would travel north today, and expected to be away for a couple of days.

Dunlop Upper Hutt player-coach, James Paikea, said he doubted that Eru, a Kiwi Colt and Wellington representative, would be able to play in the final against Smokefree Wainuiomata.

Paikea said he would be training this week on the basis that Eru would not have recovered in time.

"I can't see much hope really," Paikea said.

"I can understand Syd's frustration. He missed last year's semifinal playoff against Randwick with an ankle injury."

Women too ready to try new-age cures – Skeptics

By JOHN DRINNAN

TOO many women take up alternative and new-age medicines, according to the newly appointed head of New Zealand Skeptics.

Christchurch science publisher-writer Vicki Hyde was yesterday elected the first woman to head New Zealand Skeptics, part of the international organisation that investigates claims of the paranormal.

She said women were over-represented in "the gullibility stakes" for alternative medicine.

"It goes back to a school system that discouraged girls from taking science subjects. They get involved in things like aromatherapy rather than in medicine, she said.

Skeptics had noted an increase in people using unproven alternative medicines, a development linked to the growth of the "new age" movement.

"People are paying $70 and $80 for quartz crystals that are claimed to perform all sorts of wondrous things like curing illness by rubbing them against yourself," she said. "But they can be bought from a rock shop for a fraction of the price,".

Other alternative medicines included homeopathy, channelling and iridology, Ms Hyde said.

But only a small percentage of the people practising alternative medicines were charlatans or ripoff merchants. Most had good intentions and believed in them.

Ms Hyde said New Zealanders might be vulnerable because the education system gave little training in thinking through irrational claims.

However Skeptics, which attacks dogma, has itself been criticised for being too dogmatic, dismissing anything its members cannot prove.

MS HYDE

Last month Skeptics awarded its annual "bent spoon award" for most gullible journalism to *Consumer* magazine for its July article about alternative medicines, saying it was too uncritical and gave credence to doubtful treatments including homeopathy. Consumers Institute executive-director David Russell yesterday described Skeptics as "narrow-minded bigots" who refused to acknowledge anything they did not know about.

"In the 19th century they would have been dismissing the discovery of penicillin because they did not have the evidence to prove it," he said.

Dominion 31/8/92

MAGIC, AUGUST 92 →

URI GELLER's lawsuit filed against CSICOP (Committee for the Scientific Investigation of Claims of the Paranormal) has been thrown out by a federal court in Washington, D.C. It has been reported that the court has also imposed monetary sanctions against Geller for prosecuting the case.

Geller had begun the $15-million lawsuit against CSICOP and James Randi in May 1991, alleging that he was defamed by Randi in statements reported in the International Herald Tribune. In the motion presented by CSICOP to the court, the charge stated that Geller had no legal or factual basis for his assertion CSICOP should be held liable for Randi's alleged statements. In a declaration filed with the court by CSICOP, Executive Director Barry Karr stated, "I believe that CSICOP was made a defendant in this lawsuit solely for the purpose of harassment and intimidation, and in the hope that the lawsuit would dissuade CSICOP from encouraging and providing a forum for...the critical discussion and analysis of paranormal claims, particularly those asserted by Geller."

The sanction against Geller was made by Judge Stanley S. Harris in accordance with a federal court rule that mandates the imposition of sanctions if litigation is "interposed for any improper purpose, such as to harass or cause unnecessary delay or needless increase in the cost of litigation," or if papers filed with the court are not "to the best of the signer's knowledge, information, and belief formed after reasonable inquiry...well grounded in fact...and warranted by existing law or a good faith argument for the extension, modification, or reversal of existing law."

NEW SCIENTIST

Poisoning fear leads to German ban on herbal remedies

Taryn Toro, Berlin

A CUP of comfrey tea could be about as curative as a draught of hemlock, the German health authority has decided. This month, it banned 50 herbal and homeopathic remedies because they contain toxic pyrrolizadine alkaloids.

The authority, which is known as the Bundesgesundheitsamt, or BGA, considers all the banned remedies to be ineffective as well as dangerous. It set dose limits for another 550 natural remedies containing the alkaloids that it believes to be useful. "Medicines derived from plants can be just as dangerous as those which have been produced in a lab," says Jürgen Henning of the BGA.

According to research carried out by the BGA, the pyrrolizadine alkaloids damage the liver when consumed in large amounts over long periods, possibly by blocking veins in its central lobe. The blockages cause cirrhosis and can even be fatal. At lower doses the alkaloids alter cells' genetic material and can harm embryos. Tests on animals suggest that they might also be carcinogenic.

The banned remedies, which are derived from plants such as borage and coltsfoot, are mostly taken as infusions or pills or applied as ointments. They are used to treat coughs, contusions and a range of other ailments.

"There's comfrey, for example," says Konstantin Keller, of the BGA's Pharmaceuticals Institute. "Pyrrolizadine alkaloids are a component of the plant. We've found that when people have eaten several comfrey leaves, they first show signs of poisoning—nausea and vomiting. This is sometimes followed by shock, coma and death." He says that in smaller doses there are changes in the genetic material of individual cells, which may lead to cancer. Comfrey preparations to be taken internally are on the banned list.

According to the BGA report, pyrrolizadine alkaloids are metabolised by enzymes in the liver to produce pyrrole-like intermediates. These compounds bind with genetic material in the liver, where they remain to cause damage.

"There isn't a no-risk level," says Keller. "It's difficult to say which doses of which plants are safe. There's a large spectrum, which applies to different plants and different applications."

Suspicions about the alkaloids surfaced in the early 1980s. Since then manufacturers have voluntarily withdrawn around 2500 remedies that contain them. But officials at the BGA say that these alkaloids may be only a tiny part of the problem. Almost 60 per cent of the 100 000 drugs on the market in Germany are either herbal or homeopathic. These will now come under closer scrutiny, says a BGA representative. □

Angelic Sexism and the Politically Correct

Carl Wyant

Are Skeptics pussy-footing around by not attacking the major source of superstition and pseudo-science — religion?

With the reintroduction of serious Islam in Afghanistan, women are now required *by law* to cover themselves from head to foot.

"Yeah? So what?" you may ask. Well, supposing it read like this: "Intergalactic messengers impose harsh dress-code on Afghani sheilas."

Some months ago, I wrote a letter of genuine inquiry to the *Skeptic*. My question revolved around NZCSICOP's apparent lack of interest in religion and big-time superstition.

I figured it was a mundane question and would no doubt bring me a pre-written blurb on the subject in the return mail. Little did I know that when I mailed that accursed letter I was blundering into a csicopian missile-testing range.

To correct any possible misunderstanding, I should first explain that far from trying to "destroy belief" or run an anti-God show, my interest in this caper is to *protect* people's right to believe whatever they want.

As far as I'm concerned, if you want to charge psychic batteries with the Aetherius Society, astral travel to Jupiter with Ankar 22, or even embrace the "satanic manifestations" of NZCSICOP, go for it. Furthermore, I happen to believe in, dare I say it, God.

But when it comes to putting a gun to someone's head and saying "believe or die," call me a spoil-sport, but this is where I have to draw the line.

God and religion are totally different issues. God is so far out of the human ball-park it's practically pointless to even speculate on it. Religion, on the other hand, *is* available for investigation and the claim that "religious beliefs are untestable" is not altogether true.

If religions were the warm fuzzy creations New Zealanders seem to think they are, there wouldn't be any problem. But religions are not cute and cuddly.

Religion doesn't have anything to do with God, but it has *everything* to do with channeling. And I strongly suspect that the channeling syndrome can be explained in terms of divided consciousness or multiple-personality disorders.

Traditionally, religious channels receive telepathic messages from angels. The resulting revelations rarely, if ever, contain information beyond the general knowledge of the day.

When the "prophet" dies, the chief followers promptly introduce legislation declaring that "the truth" has been revealed and further revelation is unnecessary and will henceforth be regarded as blasphemy; thus guarding their own interests against spiritual interlopers.

Consequently religions start out as revolutionary movements, but quickly turn into oppressive, reactionary regimes.

Today the tradition continues, but instead of angels we get "the word" from extraterrestrial Space Brothers. Uri Geller, for example, gets his power from the supernatural intelligence Hoova. And like the forefathers, he is not partial to being examined on the subject. You must simply believe.

If religions were the warm fuzzy creations New Zealanders seem to think they are, there wouldn't be a problem. But religions are not cute and cuddly.

It's noteworthy that every time issues like the death penalty or corporal punishment appear in the news, New Zealand's own sanitised, user-friendly brand of Christianity is the first one out there, in a near paroxysm of blood lust, fully endorsing them.

One respondent's suggestion that "those challenging religious beliefs [can] do so elsewhere as atheistic or political groups" is a moot point. It could likewise be said

that skeptical time is wasted on pseudoscience because the information is already covered by the scientific community.

Could some Skeptics possibly be suffering from the weird new-age malady known as political correctness?

Holy smoke! Islam doesn't just *sue* its critics, it kills them. I have a whole file of writers who have been snuffed or jailed by the fun-loving followers of The Prophet. Yet, mysteriously, it is not politically correct to say anything about it.

The invariable reply to all this is, "but that's what *those* people *believe*. It's *OK* for *them* to enslave women, kill writers and practice zany medicine."

Great! But why don't the "beliefs" of Europeans and Americans command the same "respect"?

I fully support the notion of freedom of belief and have never advocated a "crusade against organised religion". I do feel, however, that the *components* of religion at least, fall easily within the scope of NZCSICOP.

But no worries! I have promised the Editor that I'll never mention the subject again. La illah il-Allah!

Skeptic Carl Wyant specialises in asking awkward questions.

Hokum Locumless

Dr John Welch apologises for not having foreseen the fact that he would be whisked off to Thailand at short notice. Look for Hokum Locum next issue.

The Homoscope

Hugh Young

At the Skeptics Conference in Christchurch in 1989, Denis Dutton mentioned that women's magazines offered horoscopes but men's magazines did not. There were two significant exceptions: the feminist magazine *Broadsheet* did not, but the gay (and nominally lesbian) *Pink Triangle* did — a particularly bland and space-wasting one:

"Appeal to the highest motive." "Stay calm at work." "The deeper issues of life affect you."

Pink Triangle folded early last year, and when the fortnightly newsheet *Man to Man* (which recently attracted the attention of the Rugby Union over its TV advertising) went tabloid in June, I decided to forestall the "real" astrologers by offering them an alternative — a Homoscope.

These undermine conventional horoscopes in three ways:

* The preposterously specific:

There will be a power cut on Tuesday and you will spend so long resetting all the clocks you will miss "The Simpsons."

You will absent-mindedly leave a condom among some papers you send to your handsome but deeply-closeted Chief Executive Officer on August 18. August 19 will be an interesting day.

* The absurdly general:

With so many planets in trinary aspect, it would be very unpropitious to lie down in the middle of the motorway on September 15. Your lucky number: 3.1415926535898.

Lucky Leo! Your lucky numbers: 10 20 30 40 39 29 19 9 2 12 22 32 38 28 18 8 3 13 23 33 37 27 17 7 4 14 24 34 36 26 16 6 5 15 25 35 31 21 11 and 1. Six of these could make you very, very lucky.

* by attributing ridiculous exactness to the stars:

September 17 will be a good day for experimenting with new foods. However, because Sirius will be in the fourth house, avoid chocolate prawns.

Since the moon will be in Aries on October 27, it would be inauspicious to use your hairdryer in the bath on that day.

The editor tells me that readers still eagerly check their own signs first. Ah well.

Maybe you too can quietly spread skepticism and undermine gullibility by offering some parody of "the real thing" in your area.

Hugh Young is a Porirua Skeptic with a wicked sense of humour.

Forum

Unconvinced Environmentalist

Your main article in the March issue (*Skeptic*, #23), "The Skeptical Environmentalist" by Vincent Gray, is perhaps the worst I have ever read. It consists almost entirely of bald assertions, all unreferenced and mostly false, vilifying unspecified "environmentalists." I shall take room to correct only the worst of these assertions; my main complaint about the piece is more formal, namely that it is unrelated to the NZCSICOP's aims, and on that ground alone should never have been printed in the magazine.

On the level of fact, Gray is almost completely astray. He admits "there are still people without enough to eat" but claims there's lately been a "reduction in the likelihood of famine." This is but one of a dozen major falsehoods in the article. More people are starving than ever, half a billion are severely malnourished, and the prospect is for yet worse famines. The "world glut of food" which Gray asserts is a "cruel myth".

Gray asserts "Green policies are unlikely to help solve these problems. Indeed they may exacerbate them." No reasoning, or fact, is offered to support these contentions. The truth, by contrast, is that erosion of ecosystems' productive capacities has already proceeded very far. I entreat readers to seek out reputable sources and ascertain the facts on these crucial matters.

Gray's main method is the well known "straw man" technique. He claims we have made exaggerated statements which he then knocks down, but many of the statements I have never seen before. Yet others that he mocks are not exaggerated, e.g., that human activities have "depleted resources." Why would anyone *want* to mock that accurate statement?

He tries to make out that environmentalists have avoided the issue of population growth (while also accusing us of scaremongering with the term "population explosion"). I would concede that some sections of the environmental movement have indeed underplayed this issue, but as a generality, he's wrong. It has been widely agreed that the four main categories of environmental problem are pollution, overpopulation, resource depletion and militarism. To the extent that population growth has been insufficiently curbed, the blame must be found largely elsewhere, not in failure of advocacy by environmentalists.

Gray suggestes that because *weather* forecasting is of limited reliability (though not totally unreliable as his unspecified "one study" claims) *climate* projections, e.g. nuclear winter, must be implausible. This is fallacious. A major global perturbation, such as a huge sooty cloud spreading over much of the planet or a 30% increase in the carbon dioxide concentration of the atmosphere, will cause results more confidently predictable than the very delicate quasi-random day-to-day changes of mere weather. Artificial climate change (a more accurate term than "global warming") is accordingly predicted by almost all the relevant experts who have examined the issue. Gray does readers a severe disservice by trying to present a different picture.

Perhaps his gravest accusation is "lack of attention to human welfare when it conflicts with environmental dogma." The leading environmentalists (such as Edward Goldsmith, editor of *The Ecologist*) have consistently maintained that it is only by taking care of Nature that humans can prosper. Trying to set up a phoney conflict "environment versus humanity" is an ignorant and mischievous distraction.

I cannot fathom why the editor of *NZ Skeptic* would contemplate such deceptive rubbish which furthermore is irrelevant to the purposes of NZCSICOP, to which I therefore do not renew my subscription.

Robert Mann,
Editor, NZ Environment

CO_2 and the Economy

While I agree with the points in Dr Gray's article that some environmentalists use bad science and may appear to ignore population pressures on resources, I find the remainder of the article flawed.

The uncritical acceptance of the statement that a 20% reduction in CO_2 will deepen New Zealand's current recession, create more unemploy-

ment and inhibit exports is particularly disappointing.

Obviously a CO_2 reduction strategy will produce growth and investment in some businesses, such as the large insulation manufacturer I work for, and reduce the importance of other businesses such as coal mining.

Overall, I see a net economic and social benefit to New Zealand from a considered strategy to reduce CO_2 emissions. The research by many energy specialists both in New Zealand and overseas seems to support my understanding.

If global warming due to CO_2 proceeds as predicted by a majority of the world's climatologists, it will result in massive and costly environmental damge. After CFCs, acid rain and DDT, perhaps it is better to be cautious rather than careless.

I feel it was unfortunate that such a polarised view of environmentalists was published without a counterpoint.

Mark Stacey, Auckland

Skeptical Support

Dr Vincent Gray has written a very pertinent and timely article (*Skeptic* 23). Dr Gray's criticisms of environmentalists are very much in line with a re-appraisal of the so-called "greenhouse effect" by US climatologists, meteorologists and geophysicists.

On 27th February this year, the Washington-based Science and Environmental Project released a public statement signed by 43 prominent scientists. It said, in part:

We are disturbed that activists, anxious to stop energy and economic growth, are pushing ahead with drastic policies without taking notice of recent changes in the underlying science.

They further spoke of:

...the unsupported assumption that catastrophic global warming follows from the burning of fossil fuels and requires immediate action. We do not agree.

The tragedy of "green" scare stories is that their public credibility decreases each time a hoax is exposed. However, the media (*Skeptic* excluded) can always be relied upon to seize the chance to scare the public out of its wits.

Mike Houlding, Tauranga

Scientific Reasoning

The views expressed by school teachers cited by M Carol Scott (*Skeptic* 23) exemplify a widespread shortcoming of science education at secondary and indeed tertiary level: its failure to inculcate scientific reasoning modes.

Science teaching appears to exhibit two main modes of transmission:

The "Gospel Truth" delivery style: "this is how things are," usually employed when dealing with noncontroversial "hard facts," such as acid/alkali reactions, Newton's laws, or the digestive system of a rat.

The "Article of Faith" approach: "scientists believe that," used when dealing with potentially controversial or non-deductively demonstrable models like stellar and biological evolution.

Laboratory work in educational institutions is usually only to illustrate what has been pre-taught; in my day "experiments" at school were "to prove that..." They were not at all experimental, and contained not a vestige of the epistemological processes which characterise "real" science in their design or execution. Since then, Discovery Learning methods have become more fashionable, but I would debate the assertion that they achieve little more than the Classical methods do in practice.

Do most degree holders in science really have a background in which scientific thinking was paid much formal attention to? To what extent do secondary science teacher training courses train aspirants to develop scientific reasoning processes in school pupils? In the case of my own first degree and teacher training, these questions are purely rhetorical. Now that I am on the other side of the lecturer's bench, I am giving such matters a great deal of thought.

Science is not what scientists "believe" (that word describes the claims of both fundamentalists and palaeontologists!) and science is not an amorphous compendium of "facts." It is an epistemological process which has evolved since the Renaissance. It is a way of thinking.

An introduction to science at first-year university level (compulsory for all BSc students) should feature a priming session of several weeks on the history and philosophy of science, and scien tific epistemology (The Scientific Method, as opposed to "scientific methods"). School science should similarly aim

less for fact-cramming and more for cognitive development and the inculcation of scientific reasoning abilities.

Until we do just that, I believe that words like "evidence," "theory," and "chance" will remain forever incomprehensible to the general public, not to mention many of the teachers who produce that general public.

Barend Vlaardingerbroek, Goroka Teachers' College, PNG

If we are to teach epistemology in a basic science course, which epistemology is appropriate? In my experience, Popperian falliblism is the most useful way to introduce philosophy of science to science students. Popper is hardly the last word (philosophical questions don't have last words), but he does give students a useful structure for distinguishing legitimate science from religion and – most importantly – from pseudoscience. –DD

Light Hats

That photograph of the "light hat" (*Skeptic* 24) is a beauty! But as foolish as it seems, there may well be some reasonable scientific evidence to support its use.

There is a good body of scientific literature regarding seasonal affective disorder (SAD) and its treatment (including shining light on the patient and by taking a variety of medicines), despite the rather convenient-sounding acronym. There are four subtypes noted in DSM-III-R, the well-known psychiatry manual.

Research into the aetiology and treatment of SAD was sparse prior to the 1980s, but came of age rapidly in the middle of that decade, mainly under the impetus of Rosenthal and colleagues at the National Institutes of Mental Health, Maryland, in the United States. Numerous well-designed clinical studies were published by this group.

The mechanism of the action of "phototherapy" (shining light on the patient, as in the photograph) remains controversial. Many researchers agree on the involvement of melatonin, suggesting that undiminished melatonin secretion during the months of shorter photoperiod may have a depressant effect.

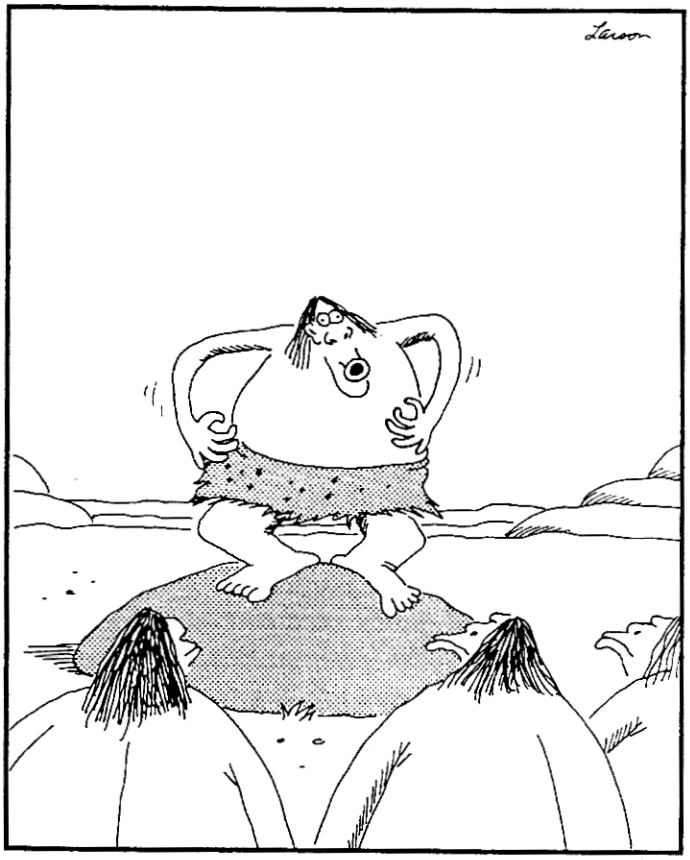
This is based on the observation that light exposure during photo-therapy suppresses melatonin secretion; the first treatments with phototherapy were based on the original biological observation that seasonal rhythms in animals depended on photoperiod. The mismatch of melatonin and photoperiod in the human has been described as a "phase delay," and as a "desynchronisation between solar and biological clocks." Photo-therapy aims to artificially extend the sufferer's photo-period. The first report of a portable unit was I think in 1990.

Drug therapy is not usually the first line of treatment for recognised SAD, but at least four groups of compounds have been used: beta-blockers, serotonin precursors and serotonin releasing compounds, benzodiazepines and monoamine-oxidase inhibitors.

There are obvious difficulties in carrying out conventional blind cross-over placebo-controlled trials in the assessment of the usefulness of phototherapy, but results thus far have prompted some to suggest that it would be wise to screen patients with major depression for a seasonal component.

A line in Morin's 1990 paper states that SAD frequently improves with "travel toward the equator." Suffering as we are now through a Christchurch winter, it's easy to agree!

John Britten, Christchurch



And then, just as he predicted, Thag became the channeler for a two million-year-old gibbon named Gus.

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