

THE SECOND

COMING

Letters

All the best from *the Skeptic*

1986 - 1990

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Letters

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&
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Letters

Vol 6 No 1 - 1986

Idio-motor not known?

In an otherwise impeccable account of Mrs Hunt's technique for identifying "electromagnetic photo fields" (*the Skeptic*, Sept. '85, p7), Mark Plummer quotes James Randi as having identified the source of dowers' belief in their power as "the idio-motor response". Fortunately he goes on to explain this phenomenon as the result of muscular unbalance on stress.

Skeptics should avoid phrases like "idio-motor response". Presumably it means a movement whose cause is not known (i.e. a movement of unknown origin, analogous to so-called "idiopathic illnesses" which are not caused by any known diseases).

The phrase has the appearance of playing an explanatory role, and it is objectionable because this appearance is spurious. In reality it performs no such function. It is exactly analogous to the phrase of the celebrated Moliere character who "explained" the soporific effects of opium as the result of its "dormitive power". It is just the sort of expression which skeptics, of all people, should be anxious to eschew.

Dr William Grey



Negative on Negative Ion Generators

I have recently become a member of your organisation. I have found that the philosophies expressed by your group are vitally important in helping stem the tide of "alternative" medical misinformation.

I am therefore intrigued to note that Mr Dick Smith is one of our patrons. I admire the man greatly, but I feel I should point out that for some years now, Dick Smith stores have been selling negative ion generators.

These electrical appliances have recently been tested at the Australian National University where it was shown patients were equally improved or otherwise whether or not the internal circuitry was functioning.

I realise there is a large market for this equipment just as there is a market for do-it-yourself horoscopes.

What do you have to say Dick?

Dr George Quittner

Mark Plummer comments:

I raised this issue of the sale of ion generators with Dick Smith in 1984.

Dick wrote an internal memo to the relevant staff member on 17th August, 1984 asking him to check whether any breach of the law was involved in the sale of the generators.

The reply was that there were no false claims made in the advertisements for the generators. Dick Smith said that they were stocked because of the popular demand for them.

Dick Smith sold his full interest in Dick Smith Electronics shortly after.



Some Skeptics prejudge the paranormal

I am somewhat perturbed by the attitude adopted by some of our members. The *Macquarie Dictionary* defines a modern skeptic as "1. one who questions the validity or authority of something purporting to be knowledge, 2. one who mistrusts and who maintains a doubting pessimistic attitude towards people, plans, ideas, etc, 3. One who doubts the truth of the Christian religion or of important elements of it." (Emphasis mine) Note - one who questions, mistrusts or doubts - not one who denies.

Yet some of our members treat all reports of paranormal phenomena not only as if they just didn't happen, but as if they couldn't happen - a position

somewhat reminiscent of the cleric who refused to look through Galileo's telescope! It is an attitude once described by Professor A J Ayer in the following terms: "It is by insisting on an impossible standard of perfection that the sceptic makes himself secure."

This, of course, is the wrong attitude. While no paranormal phenomena, as far as I know, has been proved to occur beyond all reasonable doubt, on the other hand many of them have not been disproved beyond all reasonable doubt, either! Until they are, the true sceptic must keep an open mind, and be always prepared to investigate all reports impartially - an approach recommended by Nobel prize winner Dr. Alexis Carrel as far back as 1935 in his book, *Man the Unknown*.

(For example, I believe there is enough evidence for telepathy, some cases of faith healing and genuine fire walking, and enough well-attested accounts of spontaneous human combustion to warrant much further instigation into their validity.)

A highly qualified professional geologist of my acquaintance, who has as close to a truly scientific outlook as one can get, and a healthy scepticism about unsubstantiated reports of any kind, on looking through a couple of the earlier 1985 issues of *the Skeptic*, remarked to the effect that "some of these people are as biased and as rigid in their views as the people they're attacking!"

An example of this is the letter from Keith Rex in the November 1985 issue. While it may be true, as Ogden and Richards have pointed out in "The Meaning of Meaning" (10th ed. 1952), that such philosophical and religious writing is "purely verbal constructions", i.e., the words used have no referents in the real world, and that "the modern logician may, in time to come, be regarded as the true mystic, when the rational basis of the world in which he believes is scientifically examined (p. 40), it is equally true that many modern have a good grounding in mathematics and science, and use this as the starting point for their reasoning. An outstanding example is the late Bertrand Russell.

After all, scientists do not yet know everything about the nature of the universe (and may never do so), and it is surely legitimate to speculate logically on the basis of what we (think we) do know so far.

Science alone is not the answer to the world's problems. Scientists are not supermen, nor are they perfect - outside their own field they often quite naïve and irrational, as anyone well attest who has tried to follow the reasoning in the fifth and final chapter of Sir James Jeans' *The Mysterious Universe* (Pelican Books, 1938)

Alan Towsey



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The evolution of Rosemary Brown

Reading the article about Rosemary Brown and her ghostly composers, I am sure that I recall in the first newspaper article about her, that she stated that she had no musical training. It is the sort of thing you would remember because it is quite central to the whole “mystery”.

Some years later as more “received” musical compositions were revealed to the credulous media, she was reported to have had only a couple of years of music lessons.

I have been predicting for some time that we would eventually find that she has a lover who is a musician and a student of composition (since composing in the style of earlier composers is an exercise set by some teachers of composition).

It seems I may be wrong as she now admits belonging to a musical household and being a competent musician and pianist.

If I have remembered the events correctly over the years, then Ms Brown is not just deceiving herself but everyone else intentionally, and there is a hell of a difference.

It would be very interesting and instructive if someone has access to a newspaper cutting library could go through all the press cuttings on this woman and see how the story evolves over the years.

John Winckle



Clarifying Einstein's General Theory

Allow me to attempt an explanation of Einstein's General Theory of Relativity for Jim Woolnough (*the Skeptic*, Vol.6, No.1). Dr Woolnough deserves commendation for admitting frankly his confusion in “the Skeptic”. I do not know whether he has tried writing to scientists on the speed of propagation of gravity, but an increasing flood of crank letters on relativity has discouraged them from replying even to sensible, if elementary, queries. This reticence is both inevitable and unfortunate; however,, there are many good texts on relativity for the layman, and I hope the

following will help:

Relativity: A Popular Exposition, Einstein himself (Methuen, 1952).

What is Relativity, by L.D. Landon and G.B. Rumer (Oliver-Goyd, 1960).

Relativity and its Roots, by B. Hoffman (Scientific American Books, 1983).

Space, time and Gravitation, by A. Eddington (Cambridge, 1923)

The problem with writing on technical topics for the interested now-specialist is that, regardless of how good and exposition the author be, the arguments must be simplified. One of the most powerful explicative tools is the use of analogy. However, one can only push analogy so far before it breaks down - or it would not be an analogy at all, but the object under consideration in the first place. This lies behind most confusion.

I cannot, also, explain to Dr Woolnough what is going on without involving curved space, but I can draw an analogy valid at this level, which I hope will clarify the situation. First general relativity is usefully interpreted as meaning that the presence of a mass distorts the space-time around it. Although the theory “mixes” the one time dimension with the three space dimensions; the ideas remain the same.

Our two-dimensional space can be considered like a sheet of elastic material equally stretched in both directions, and entirely flat in the absence of masses. Now model the sun by dropping a ball bearing on to the material. It will distort downwards so as to support the mass, and is deformed into a curved surface. The earth is modelled by a much lighter mass - say a table tennis ball - which will, if released at the right speed in the right direction, describe a circular orbit around the ball bearing at a uniform distance from it (ignore friction; in reality there is nothing to slow earth down). Although it is hard to picture, the same argument increased to three dimensions, is a fair description of what actually happens.

Now suppose the ball bearing suddenly ceased to exist. The table tennis ball would not be aware of this fact instantaneously, but would only find out when the ripples, caused in the elastic sheet by the disappearance, reached it. In a similar way the earth would only know if the sun disappeared some time afterwards. Relativity says that the speed of light is the universe's speed limit - an assertion not made arbitrarily, but backed up by experimental data - and gravity is no exception to the limit.

If the ball bearing were to wobble slightly, the orbit of the table tennis ball would also wobble because of the induced ripples in the elastic sheet. Although the

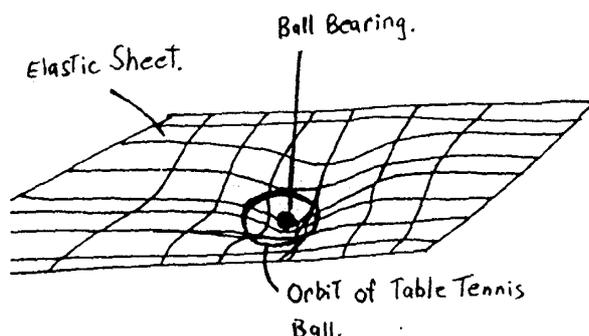
table tennis ball follows the ripples caused by the ball bearing some time previously, it still does not ever reach the ball bearing or move indefinitely distant from it; the orbit remains between certain fixed limits. The same applies to the sun and the earth.

Contrary to Dr Woolnough's assertion, experiments can be done on gravity (by which I assume he means testing general relativity, rather than Newton's simpler theory which it subsumes, and which is tested by timing the fall of objects). They are admittedly very hard to perform, but so far they support general relativity. One is the bending of a beam of light as it goes past a massive object. This can be understood as follows; obviously light has energy and therefore, by $E=mc^2$, is equivalent to mass. Just as a small mass projected on our elastic sheet deviates from a straight trajectory near the ball bearing, so has light been observed to bend as it passes near the sun. The first such experiment, carried out in 1919, took place during an eclipse, so that the starlight used came as close to the sun as possible (for maximum effect) while remaining visible. Its success was crucial to the acceptance of general relativity. Modern experiments hope actually to detect waves of gravity, and may already have done so.

Finally, it is precisely because gravity delivers no energy to the earth that it is not "used up", and the gravitational effect of the sun is felt in the earth's shadow. No energy is used up in keeping the table tennis ball in orbit around the bearing either, and the elastic sheet is still distorted beyond it.

Interested questions such as Dr Woolnough's are very well, but individuals who wish to write entire books actively criticising relativity should have to display a working knowledge of the theory first. Lest I be accused of wantonly advocating unequal right of access to the presses let me enquire in what other field would people who literally don't know what they are talking about be permitted to publish?

Anthony Garrett, PhD



Another Clarification

Two comments about the Feb *Skeptic*.

First, I'm not enough of a physicist to reply completely to Jim Woolnough, but I do know that in Einstein's system there is no such thing as a 'ray' of gravity. I think the General Theory of Relativity was at least partly proposed as a theory of gravity that would provide a physical universe compatible with the Special Theory.

Second, Michael Hough's lady ("AIPG Welcomes Debate with Skeptics") who was described as a "beached whale". The incident proves nothing. Is it "paranormal" to be woken from sleep by the phone, or an alarm clock? Surely one's senses don't cease to function while one is asleep or anaesthetised. "Outside of conscious awareness" is not the same as "paranormally". In any case, I was told years ago by a nurse that she was carefully trained to be very careful of what she said around patients who were asleep or unconscious, as hearing was the last sense to go and the first to reappear.

Richard Humphrey

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Keep Clipping

During the past few years many people have wondered how the Skeptics have come across many stories. The secret is - YOU.

Virtually every day we receive news clippings from skeptics throughout Australia. A few clippings contain startling news - Uri Geller doing psychic prospecting, for example - but most are routine. Yet it is the aggregation of these routine clippings that often provides the best stories. I have used the clippings to write *Paranormal Australia*. All clippings are filed by tireless archivist Jenny Smith and are used for longer articles and eventually a book.

So if you want to know how to help the Skeptics, just keep those clippings coming in.

Mark Plummer.

Einstein's Theory Again

And I stand by my letter to *the Skeptic* of Feb '86, in which I proved by reductio ad absurdum that gravity could not travel as slowly as the speed of light on, indeed, at any finite speed.

This was because as sunlight arrives on earth, so must that little bit of gravity that is concerned with keeping earth in orbit around the sun right now, 8 minutes late. That "say" of gravity which arrives late must come from a slightly wrong direction and so cannot keep earth eternally orbiting.

It's no use saying that gravity is setting out all the time in all directions. So is sunlight. But the rest passes earth by and only that which hits earth can be effective. The field of gravity so elegantly shown in the later "Skeptic" as a massive sun denting an elastic plane of space-time continuum with a ping-pong ball rolling around it representing (inadequately) earth, omits the fact that the ping-pong ball will also dent the plane slightly and so will be traveling constantly against its own bow-wave acting like friction.

Similarly, I believe, any other field theory will fall down for lack of allowance for a body moving in the field. The only answer is that gravity travels at infinite speed.

Jim Woolnough



Notes From A Traveling Skeptic

The following are a few items picked up during my travels which I thought may be of interest to readers of *the Skeptic*.

1. In Madrid last March there was a proliferation of posters advertising the diagnostic virtues of iridology - everything from warts to brain tumors. All my attempts to remove one, without destroying it, for a souvenir were thwarted by the adhesive, a remarkable similarity I thought to any attempt to separate proponents from their belief systems!

2. In old Jerusalem city I spotted a shingle proclaiming to the world in Hebrew, Arabic and English that its owner was a "fork-bender". Sensing that I was hot on the trail of another Uri Geller, I tracked him down only to discover that he was indeed what he claimed to be he fashions old forks and spoons into bracelets!

3. During a group discussion in Haifa I learned

that many Israelis accept graphology as an accurate tool for character analysis. Some employees in Israel in asking for a handwritten resume from prospective employees, do so for the purpose of analysis. I argued (rightly or wrongly) that the principle involved was the same as in astrology, tarot and tea leaves, and that the employer was more likely to be concerned with the applicants neatness and legibility rather than determining his characteristics from the meanderings of a ball point pen.

Being completely ignorant in this field, perhaps some discussion by readers in *the Skeptic* would serve to enlighten me.

Harry Edwards

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Electro-encephaloneuromentimpography and stuff

Viewers of current affairs in Sydney have seen an upsurge in miracle cures - low energy ion pendants and magnetic beads in particular, which allegedly are able to send cancers into regression, enable arthritics to become dexterous and banish teenage acne forever. No doubt in his day, they would have also helped Quasimodo to qualify for A grade basketball.

These baubles with their alleged miraculous powers to cure are nothing new. Astrologers and advocates of alternative medicine have been peddling them for millenia, reaching an apex in the 18th and 19th centuries.

Today, in an era of disillusionment, they are again gaining popularity with the desperate.

In astrology, the crux of the argument contends that, if controlled exposure to electricity and magnetism can affect human physiology so must fields generated by natural phenomena.

The earth's magnetic field is the subject of two hypotheses - its non-uniform rotation and its molten iron and nickel core; and the flow of electrical currents between the earth and the plasma in which it is immersed. The magnetic field is decreasing and the magnetic poles slowly shifting. Short term rapid fluctuations also occur due to magnetic storms caused by solar activity.

Astrology

It is to these fluctuations astrologers attribute physiological significance, quoting nervous and psychic disorders, psychiatric hospital admissions and suicides to support their contention. Scientific studies carried out since 1935 seeking such a relationship conclusively show no influence. For instance, in 1978, Nona Press *et al* conducted a study of the suicide records for the period 1969-73 in New York City, and although 100,000 astrological factors were examined in each of 311 candidates, the very thorough study failed to reveal one that was significantly related to suicide.

Alternative medicine

There are two types of magnetic field which affect man.

(a) Athermal.

Athermal effects have been studied and are almost impossible to detect. It remains a matter of conjecture as to whether there really are effects.

Experiments performed on volunteers have produced little if any conclusive evidence of thermal pollution or to use astrological terminology “the electromagnetic vibrations which shape the characteristics given you by your Sun sign”.

Industry imposes stringent safety standards for exposure to magnetic radiation of between 200 and 300 Gauss (G) for the whole body for extended periods. 800G applied to the heads of volunteers produce the harmless phenomenon of phosphenes, or the seeing of light flashes in the eyes. Magnetic fields of up to 9300G have been used on the heads of patients to induce clotting in cerebral aneurisms by the injection of a suspension of microspheres in albumin; and mice have been exposed to fields of up to 120,000G with no ill effect. In view of this, one would have to be extremely naïve to believe that the magnetic field emanating from a string of beads could have any effect let alone therapeutic benefit.

(b) Thermal.

The effects of excessive exposure to thermal energy are easily recognisable, tissue destruction, haemorrhage, cataract formation and change in the thyroid gland being some of the symptoms.

Today, electrodiathermy is an acceptable form of treatment where the application of deep and localised heat has beneficial effects on inflammatory and congestive conditions.

In the past, and now it seems today, electricity and magnetism has featured in some rather bizarre machines reminiscent of Heath Robinson’s contraptions.

In the 1780s, a “Dr” James Graham of London, had in his Temple of Health, the Grand Celestial Bed constructed with 700kg of magnets and adjustable to all angles and inclinations. The bed was guaranteed to ensure consummate pleasure and pregnancy for the couples who queued to pay fifty pounds a time for magnetically-assisted copulation.

The Electropoise, marketed by Dr Hercules Sanche consisted of a metal pipe which when strapped to the body or attached to a limb, supplied the needed amount of electrical force to the system and placed the body in a condition to absorb the oxygen through the lungs and pores.

Then there was the Patent Electric Eye Battery, an ordinary eye bath with a small battery immersed in it, which it was claimed, would cure specks before the eyes or early excesses.

Another, Dr Scott’s Electric Hairbrush not only cured dandruff but also “soothed the weary brain”. Sorry Barry Williams, they are both out of stock!

Daniel D. Palmer, the father of American chiropractic, developed a machine to measure the temperature of the spine, which he hired out to fellow practitioners for \$1000 a time. Its name? An electroencephaloneuromentimpograph!

Harry Edwards



Einstein again defended

Dr Woolnough (*the Skeptic* vol 6.3) stands by his letter of two issues previously in which he decries Einstein’s theory of general relativity by asserting that gravity propagates at infinite speed. I stand by mine (*the Skeptic* vol 6.3) defending Einstein, though it is necessary to expand the argument a little.

Dr Woolnough asserts that if gravity propagates at a finite velocity, the force of the sun on the earth arrives late, and acts in the wrong direction to keep the earth in orbit. I developed an analogy in which space was



represented by a sheet of elastic, the sun by a ball bearing supported by the sheet and deforming it, and the earth by a table tennis ball moving on the deformed sheet. Circular motion of the table tennis ball around the bearing, on the deformed sheet, is stable. Even if the bearing wobbles a little, and those wobbles propagate along the sheet to the table tennis ball, there is still a large depression in the sheet in which the table tennis moves. Motion is circular with a small wobble superimposed on it; the ball never leaves the vicinity of the bearing.

Dr Woolnough states correctly that the table tennis ball will also deform the sheet, albeit less than the bearing. Quite right; the earth too curves the space-time in its vicinity, although much less than the sun because it is much less massive.

But it is untrue to state further that the table tennis ball is therefore “pushing against its own bow wave” and must slow down through friction. If the sheet were friction free, the circular motion would continue indefinitely even though the table tennis ball moves in its own slight depression. Space-time is like this.

Einstein’s equations, applied to this situation, contain terms which are clearly interpreted as the reaction of the earth upon space-time as well as the sun. Relativity does therefore make allowance for this effect. It also claims unambiguously that gravity propagates at finite speed, namely that of light. If Dr Woolnough is to reject relativity he is faced with the job of explaining its many successes in an alternative manner.

At a deeper level the whole elastic sheet analogy fails, it is simply a useful tutorial device; ultimately there is no substitute for studying relativity itself. Lew Landau, one of this century’s great physicists and teachers, has written “It is clear, that if you wish to work in this field, there is much study ahead of you - to become acquainted with the subject. You would hardly sit behind the wheel of a car without knowing how to drive. Physics is by no means easier.”

If Dr Woolnough contacts me at the School of Physics, University of Sydney I will gladly suggest books he might find useful. It is always good to see interest in true science rather than pseudo-science.

Anthony Garrett

Although we have had further correspondence concerning the speed of gravity and Einstein’s theory, I have decided not to publish any more letters on this subject. I would be happy to put any interested people in touch with one another, so they can correspond privately. Editor.

Chiropractic reply to Dr deVeaux

As a practising chiropractor and as a member of the Australian Skeptics, I take exception to several points contained in Dr deVeaux’s article (*the Skeptic* Aug 86 p19).

You mentioned in paragraph 1: “The total lack of objective proof.” In the case of chiropractic, I would encourage you to familiarise yourself with (a) the Webb report, committee of Enquiry into Chiropractic 1974, AGPS, and (b) the report of the New Zealand Enquiry on Chiropractors.

In paragraph 2 you state “that the person they are seeing is not recognised as a legitimate, scientifically trained therapist.” I would draw your attention to the fact, that in all states of Australia, a chiropractor must establish his legitimacy (as do all medical practitioners) by being registered by the State Health Department. The scope of practice is defined by an Act of Parliament. Registration in all states is only available to those applicants who are appropriately trained in those institutions which have met the criteria of the State Health Board (B.App.Sc. Grad.Dip.Chiropractic).

As to the use of the title “Dr”, I am sure that most people are aware that the title “Dr” is a courtesy used in many professions including medicine, veterinary science, dentistry, and in many cases, pharmacy. In my own case, I graduated as a “Doctor of Chiropractic”. I did not award this title upon myself. On the subject of pseudo-scientific treatments, I would point out the fact that such procedures as x-ray diagnosis, neurological and orthopaedic testing, ultrasound therapy and manipulative therapy are as much a part of “scientific medicine” as they are normal and usual procedures throughout my profession.

In your second last paragraph, you use the term “nasty people” to identify all those at the brunt of your quixotic vitriol. Dr, (and I use that term out of professional courtesy), I fear the “nasty people” are not confined to any group be they natural/un-natural/conventional or even pseudo-alternative, anti-scientific or old fashioned! Nastiness is a very subjective quality, and I do take umbrage to your use of that term in categorising my, or any other profession. Surely, such emotive terms have no place in what should have been an objective article on semantics.

I am sure that as Skeptics, we would agree that the enemy of truth and clarity, is usually half truths, ignorance, lack of research and poor objectivity. In the case of the above-mentioned article, Dr, I feel the enemy is within.

William Straede, DC



What is Skepticism?

Skepticism is a quality which is all too rare. Many people believe they are skeptics. Some skeptics will scoff at astrologers and numerologists yet may uncritically countenance ESP, telekinesis, and antibiotic therapy.

A true skeptic should be consistent. He or she should apply the same critical analysis to all philosophical and scientific questions.

Skeptics have attacked iridology* and naturopathy without offering any concrete evidence against these disciplines. This is illogical and unfair. It should be realised that there are charlatans in every profession and there are just as many charlatans in allopathic medicine as there are in naturopathy. Why do some skeptics criticise a naturopath who prescribes a wholesome diet, while lauding a medical practitioner who prescribes deadly drugs whose worthlessness has been repeatedly exposed by competent authorities? I quote Dr F. Dennette Adams in the book *The Diseases of Medical Progress*, "It is no secret that certain drugs, surgical procedures, and other forms of therapy, can even when properly employed, create unfavourable, often harassing and sometimes fatal side-effects. Unhappily it is also true that drugs are frequently administered or other procedures performed, apparently without due regard for their disquieting and sometimes dangerous potentialities. One need but mention for example, the widespread use of antibiotics for trivial upper respiratory infections and comparable minor ailments - a practice that seems to continue in spite of the exhortation of many qualified authorities that these agents are, as a rule, ineffective in such cases."

Skeptics should not knock spoon-benders while at the same time uncritically worshipping the sacred cow of medicine. One is as bad as the other. Professor Edmond Szekely said, "The blind confidence of the public in the ability of medicines to cure disease is hardly less than that of an Indian brave in the medicine man of his tribe and almost as devoid of reason."

What is a skeptic? A skeptic is one who is unable to accept as true the received opinion on any particular subject; one who doubts the truth of anything.

If a skeptic claims the right to doubt the truth of anything he or she should also be fair to examine everything impartially. I am a skeptic and I seriously doubt the genuineness of those who claim to be skeptics, who while "straining at the gnat will swallow an elephant".

Skepticism is a healthy mental attribute which acts as an antidote to gullibility and superstition. Let us keep it that way.

Kenneth Jaffrey

*But see a critical article on iridology in *the Skeptic* Mar 82 vol 2.1. Also *Examining Holistic Medicine* edited by Douglas Stalker and Clark Glymour. Editor.



Two Versions of Creation

I was really pleased to see the point by point refutations of creationist arguments in *Creationism - an Australian Perspective*. The intellectual dishonesty and ignorance of creationist arguments needs to be exposed and documented in this way.

However, even if every possible creationist objection to modern science was answered, creationists would still be unconvinced, because creationist beliefs are based on the Bible.

Therefore the best answer for these people and others is in terms of the Bible. I believe that the following points should be made about the creation stories in the Bible, and made repeatedly:

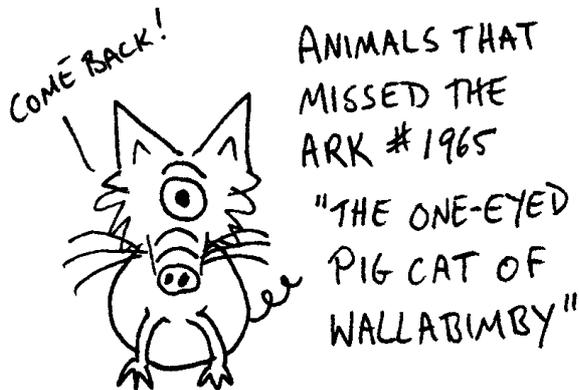
- (1) There are two creation stories in Genesis.
- (2) They contradict each other if taken literally.
- (3) Christians, including Evangelical Christians, are not obliged to take these stories literally as they have interpreted these stories in other ways.

These facts can be presented simply, and in pictorial form. It cuts the ground from under the feet of the creationists to point out there are two creation stories in the Bible, and that their interpretation of the Bible is not the only one going. If would also put them on the defensive, because the two creation stories are so

obviously at variance.

If there was wide public knowledge of the fact that Genesis has these two creation stories, the nonsense about creationism would fade.

Michael Glass



Is All Science Based on Inductive Reasoning?

I would like to comment on a point made by Anthony Garrett (*the Skeptic* June 86 p19). He suggested that if we accept the probabilistic nature of quantum physics then one or other of three well-tried assumptions has to be ditched. One of these is inductive reasoning and another was realism. He wrote that we do not wish to renounce inductive reasoning “on which all science is based”. This is a somewhat eccentric position to adopt in view of Karl Popper’s demonstration that science does not depend on anything like induction as traditionally conceived.

This matter of induction needs to be pursued because one of the greatest problems which skeptics confront is the widespread idea that science yields a specially secure kind of knowledge which is arrived at by a process of induction, i.e. accumulating observations. The notion that science consists of a growing body of facts, or observation statements, or of laws verified by inductive logic, has many unhappy consequences. Imagination has no place in the inductive scheme and

this precipitated a revolt against science and reason by several generations of romantic poets, starting with William Blake who detested what he took to be the Newtonian method and world view.

Similarly criticism and debate have no apparent role if progress comes about simply by doing experiments and gathering more data.

And moral responsibility is squeezed out if the highest goal of the scientist is to collect information and thereby reveal some more pages of the book of nature.

Science without imagination, critical debate and moral responsibility would represent a sorry spectacle but these things are all implicit in the “inductive” theory that is taught to so many students. Especially dangerous is the belief that this method leads to certainty, or something like it. This belief is likely to crumble when people find that the supposed rocklike foundations of science move from time to time (when Einstein’s theory challenged Newtonian mechanics, for example).

People whose simple faith in the certainties science has shattered, may react by looking for the certainties elsewhere, in mysticism or in some form of irrationalism or superstition. Therefore if people can be given a more realistic understanding of science and its methods then they are much less likely to fall prey to purveyors of irrationalism. This means that the inductive view of science has to be replaced by something better.

Popper’s theory of “conjecture and refutation” corrects many of the defects of more limited (and limiting) theories of science. It is spelled out in Bryan Magee’s “Popper” (Fontana Modern Masters) and in several essays in Medwar’s *Pluto’s Republic* (OUP).

On the topic of quantum theory, Popper’s “Quantum Theory and the Schism in Physics” (Hutchison, 1982) is a corrective to a number of metaphysical ideas, especially determinism and subjectivism. Many physicists hold these ideas, often unconsciously and uncritically and consequently some form of mysticism has become an occupational hazard of working in particle physics.

Rafe Champion

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Chiropractic

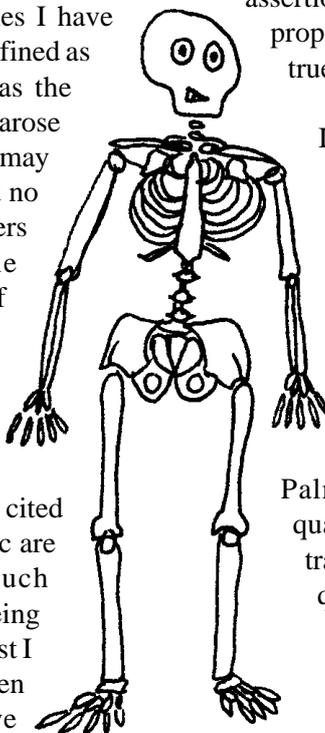
Dear Sir,

I must regretfully request that you allow me the opportunity to correct a misrepresentation of my views, which occurred in William Straede's letter (*the Skeptic*, Vol 6, No 4) in response to my article on pseudoscientific medical practices.

Mr Straede, a chiropractor, has accused me of referring to himself and his colleagues as "nasty people". I did not. If he would care to re-read the paragraph in question, he will see that I used these words ironically, in reference to my colleagues in the medical profession. It was an attempt to satirise the widespread distrust, by many in the community, of anything with a vaguely scientific air. While I have strong views on the morality of trying to treat illness with unsubstantiated techniques, I do not use abusive terms such as this for those who do so.

I would like to make a couple of other observations. Mr Straede's opinion that the term "Dr" is only a courtesy term when applied to medical practitioners does not agree with the two dictionaries I have consulted. The term, in both, is firstly defined as a medical practitioner, and secondly as the holder of a higher degree. Both usages arose during the 14th Century at the latest, and may be regarded as homographic. I can find no mention of the "alternative" practitioners in either reference. I note that the institution which awarded the "Doctor of Chiropractic" degree held by your correspondent is not identified, and we are thus unable to ascertain whether he is recognised by official tertiary institutions.

My other point is that the references cited to support the legitimacy of chiropractic are all Government committees. If such committees are generally regarded as being the arbiters of scientific truth, it is the first I have heard of. Even if their views had been universally accepted (which they have not), they do not provide support for the unproven beliefs underlying chiropractic, only that some disabilities may be helped. I dispute neither that, nor the diagnostic procedures mentioned in Mr Straede's



letter. In that respect, chiropractic is superior to most other "alternative" practices, which have no beneficial effect at all.

Hence, I frequently refer patients to physiotherapists. The difference is that a physiotherapist will confine his or her treatments to those which have been proven to be useful, and will not try to manipulate the spine to treat diabetes, cancer, blood pressure, and emphysema as I have seen done by chiropractors.

I remain happy to co-operate with any discipline which can objectively be shown to have a therapeutic value greater than a placebo. I have yet to see the objective evidence that any of the pseudo-medical fields have been so proven.

Dr K. J. de Veaux



Dear Sir,

I read the article by Dr K. J. de Veaux, "A Rose by Any Other Name", with interest. While I agree in part with most of what is said, I find it rather difficult to reconcile all of the claims. For instance, the implied assertion that all "alternative" practitioners are not properly trained, in one area at least, is not quite true. I refer specifically to chiropractors.

Firstly, let me say that I am not, nor have I ever been, involved with this type of therapy, other than as a patient, so I do not write as an aggrieved practitioner.

Chiropractic may have started as an "alternative" therapy, but it has certainly developed into a reputable type of treatment, a specialised form of physiotherapy. If one examines the training requirements for a chiropractor at a proper training college, such as the Palmer College in the USA, where basic qualification requires three years' full-time training, then it is obvious that they are just as qualified as any physiotherapist or nurse.

Naturally there are many unqualified chiropractors around, since in most states until quite recently anyone could call themselves a chiropractor. No-one is more concerned at promoting stringent registration requirements, the removal of untrained practitioners, promoting proper training courses, and cleaning up the business than are the reputable, fully-trained

chiropractors.

Comments such as those of Dr de Veaux are unfortunately too common and seem to reflect an unbending attitude among many Skeptics. Fortunately, not all members of the medical profession share the opinions of Dr de Veaux.

Professor Ian Maddocks of the Flinders Medical Centre (SA) advocates the use of “alternative” medicine, mainly chiropractic, acupuncture and hypnosis, recently stating that people “... needed to be educated about how [alternative medicine] linked with traditional medicine. ... Alternative medicine is coexisting with conventional medicine, and is beginning to interact more and more.” (*Sunday Mail*, 12/10/86, p.32)

He commented that alternative medicine was “intuitive” with its strength being based upon “the intimacy between practitioner and patient...”. While alternative medicine may lack scientific proof and validation, it certainly has a place in the healing arts.

Perhaps if doctors returned to taking time to treat the real problems of patients’ health, instead of treating them like an assembly line, where a certain quota of patients has to be pushed through per hour, then perhaps alternative medicine would die a natural death. Until that unlikely day, alternative medicine and its practitioners will continue to flourish.

L. Eddie



Dear Sir,

I’ve shaken my head many times as I recall and re-read ‘Where In Australia Are the Charlatans?’ (*the Skeptic*, Nov 86). If the article was meant to be thought provoking, then it did the job.

In the article, Tony Wheeler went to pains to suggest that there may be doubts about who actually was a charlatan and the possibility of some disagreement, but then went ahead and made his inclusions and exclusions almost off the cuff. Religion and astrology were quickly lumped in with chiropractors and acupuncture, and this surprised me a little.

The quick thought to mind was, Ah! Tony must be a medical practitioner and his prejudices are showing. Then I thought, maybe my own were showing!

I have, however, noted lately that a couple of your writers are being skeptical and bucketing people about a lot of things but never about “legitimate medicine”.

The chiropractors are copping heaps, and others to

whom the medical funds pay out their good money for services rendered also seem under attack. I often wonder if qualified medical practitioners who also practice chiropractic principles or acupuncture are likewise suspect?

And perhaps we should lump in the physiotherapists because they do a lot of massage, which is roughly the same as the chiropractors do; and those sports clinics use similar techniques so they’re suspect too. Are they all charlatans? Or do we selectively rubbish some of them for personal reasons?

Yes, it seems I find myself in the position of defending people such as chiropractors and yes, maybe my prejudices are showing. I guess as one who has benefited from their massage and exercises several times in the past 20 years, I’ve got to say something. Granted there are occasionally wrong things done by chiropractors and medical practitioners and physiotherapists, but for the most part they are caring hardworking people. Just because one chiropractor charges \$100 to rub your back and one medical practitioner defrauds Medicare, this does not brand everyone in both camps as robbers.

So there it is. The alternative versus the non-alternative. I often wonder just how “alternative” is the medicine provided by these dietitians, physiotherapists, acupuncturists, drug houses with their synthetic herbs and so on. I guess it all depends on where you are sitting when you give the answer.

John Postlethwaite



Dear Sir,

Who declared open season on chiropractors? In *the Skeptic*, Nov 86, in an article by Tony Wheeler on charlatans, my profession is given another bucketing.

For the record, chiropractic is not a pseudo-medical practice. It is a distinct and separate discipline, a first portal of entry and a registered profession controlled by State parliamentary acts. In the case of Medicare, I refer you to a June 1986 report of the Medicare Benefits Review Committee AGPS. The committee, composed of Judge Layton and four eminent allopathic doctors, found that as a profession, chiropractic met their criteria of effectiveness, social acceptability, cost efficiency (compared with medical treatment), standards of practice, training and community needs.

The committee’s recommendation was that the

Commonwealth fund chiropractors in public hospitals and/or community health centres or clinics. One of the conclusions of the venerable committee was that the schism between medicine and chiropractic is counter productive to the interests of the public welfare. They also felt that there was a need for orthodox medicine to come to terms with the fact that chiropractic is accepted by the public, and here to stay.

Mr. Wheeler, before you use the word charlatans again, in respect to my profession, I urge you to read this report. Up-grade your education in an area in which you seem to be guilty of passive acceptance of traditional blind prejudice and uninformed antiquated AMA dogma, atypical of a bona-fide Skeptic.

Finally, just to set the record straight, the ELECTROENCEPHALONEUROMENTIMPOGRAPH mentioned by Harry Edwards was a “one off” research project not by D. D. Palmer, but by his son B. J. Palmer. This 1935 project, a crude EEG, was undertaken as a college research program, and, when found to be unproductive, was dismantled. This machine was never hired out and the few remaining components of the one and only ever built, remain in the Palmer College Museum.

While this research project may now sound hare-brained, it was done in the spirit of investigation in an area of mushrooming technology. This same institution, incidentally, was the first teaching facility in the USA back in 1910 to research the use of another radical development in technology, for the study of human anatomy. The work was called “spinography” and the device, also with a funny name ... X-ray.

Ref: Medicare Benefits Review Committee: Second Report June 1986 AGPS;

Healing Hands, Joseph E. Maynard, Jonorm Publishers Palmer College, 1000 Brady St, Davenport Iowa 52803 USA

William Straede
Doctor of Chiropractic
Graduate of Palmer College
of Chiropractic, USA



Alternative medicine

Dear Sir,

In reply to Kenneth Jaffrey (letters column, *the Skeptic*, Nov 86). In his letter, Mr. Jaffrey attempts to

define skepticism, defends alternative practices and attacks orthodox medicine. He claims that it is “illogical and unfair ... to attack iridology and naturopathy when there is no evidence against these practices”. He fails to mention that there is no legitimate evidence for these practices.

Many alternative practitioners give sound advice with respect to diet, exercise and relaxation. Unfortunately, this is usually mixed in with prescriptions for various unproven therapies and backed up by pseudoscientific “investigations” such as iridology and astrology.

Alternative practices remain alternative until there is legitimate scientific evidence to show their efficacy. That is, if such evidence is found, then the “practice” ceases to be alternative and becomes orthodox. If no such evidence can be found, then the practice remains alternative.

Unlike the hard evidence which can be demonstrated in sciences such as engineering and architecture, the substantiation of the efficacy of a form of therapy requires an understanding not only of the processes of normal physiology and of diseases but an understanding of the process of gathering evidence of that efficacy. (For those interested in understanding how therapies etc are evaluated, may I recommend “Studying a Study and Testing a Test” by R. K. Riegelman, Little Brown & Co, Boston).

This process seems to be a mystery to most proponents of alternative practices who seem to rely solely on anecdotal evidence and proofs such as “if some is good then more is better and a mega dose will cure anything”, e.g. vitamin therapy.

Alternative practitioners constantly try to justify their practices by implying that orthodox medicine is a “closed shop”. Nothing could be further from the truth. Orthodox medicine is constantly searching for new ways of investigating and treating disease and effective ways of promoting good health, while at the same time re-evaluating old and existing remedies.

The practice of medicine requires proper training. This can only be found in our government universities and colleges and their affiliated hospitals.

Richard Gordon
MBBS, FRACGP



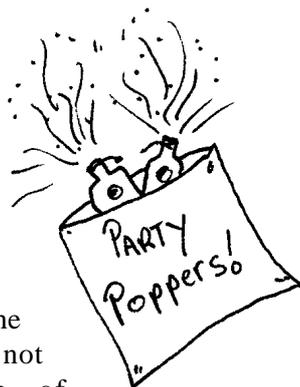
Popperism

Dear Sir,

In response to Rafe Champion's letter (*the Skeptic*, Vol 6, No 4), science does proceed by induction. It is a guess, albeit a very well educated and justified one, which theory best explains the facts. It is an extrapolation to state that, because the sun has risen in the east for as long as we know, it will do the same tomorrow. This is precisely what is meant by induction, irrespective of whether one agrees with it.

Popper's claim that science is deductive therefore makes no sense. Not surprisingly it has equally absurd consequences, including the stance that science does not involve a progression of knowledge. Do we really have no greater knowledge of the workings of nature than pre-Renaissance man, and is it really no advance to assert that the earth orbits the sun instead of vice versa. I think not.

An incisive analysis of Popper's position is given in the short book, *Popper and After* by D. C. Stove. I recommend it to all who are interested in resurrecting a consistent and comprehensible picture of science.



Anthony Garrett

Vol 7 No 3 - 1987

Brock Polarizer

Dear Sir,

I have been a subscriber to *the Skeptic* for a few years now and I have enjoyed each issue immensely. They're great fun and I really hang out for the next one to arrive after I've finished the previous one. (More! More!)

(You'll notice, by the way, that just like your contributors and editors, I adore using brackets.)

If find I must put fingers to keys and make a few comments and observations about an article that appeared in your latest issue (Vol 7, No 2). The article concerned the Energy Polarizer, a product of Peri

Integration; a division of HDT Special Vehicles Pty Ltd.

Before I make my comment on the article in question (written by Mr. Barry Williams), I should indicate immediately, from the outset (you see, one of my favourite hobbies is tautology) that apart from being a petrol head and in general, a hoon, my profession is advertising. I make the punters aware that my clients have products that are "a must have". (Pretty brave to admit that, eh?)

Anyway, my point is that the way to sell any product (or indeed any idea) is to identify it, position it, and then *make it appear totally unique in the marketplace and use all available media for maximum reach and frequency, in the most cost effective way.* (Don't you just love phrases like that? I know my clients do!)

One of my clients is a large automotive importing company and after reading about the Polarizer I convinced them to buy one so we could play with it ... pass it round, see what it does, admire the packaging, etc. (That's another thing you learn when you are in advertising - you must change from past tense to present tense and vice versa as much as possible. Remember: Be Conversational!)

We played with the Energy Polarizer for quite awhile. In this time I reckon Peter Brock must have got about 300,000 column centimetres of free advertising in the consumer press, and about 20 hours of free TV. (We call it Advertorial in the game.)

Nationally!

Now, of course, the whole fracas is nearly dead and buried, and if you read current motoring magazines you'll see editorials proclaiming Brock shouldn't be written off, he's about to bounce back as Australia's No.1 motor sport hero and manufacturer of special bits for Holdens, he's just been through a slump, he'll always be a champ, the cars are still absolutely fantastic, etc, etc.

It really was an absolutely brilliant marketing campaign. He was featured in just about every type of media, for months on end, ALL FOR FREE! (My clients would have to pay an absolute fortune for advertising like this.) I mean, he even cracked five pages in your newsletter for free! And all the time, people kept saying that a Brock Commodore is still a brilliant car, it's just that the Polarizer doesn't seem to do anything. And he's STILL selling HDT stuff like crazy.

Ha! Who's the dummy? Never in the history of motoring journalism (or journalism in general) has so much space and time been devoted to a car manufacturer, and a small one at that. The Polarizer

was just a fantastic way to keep his high performance Commodore being talked about in the media, and therefore in the forefront of people's minds.

Imagine his delight to find current affairs shows and journalists from the major dailies doing back to back tests on HDT Commodores, with and without the Polarizer. All one could *really* see was a road test about a locally produced supercar capable of absolutely sucking the doors off any foreign exotic that would probably cost up to five times as much! They'd call in all these motoring experts to drive them and they'd all say "Although Brock's cars are excellent handlers, are unbelievably fast, and are beautiful to drive, we really can't tell the difference between the one with Polarizer and the one without.... And then they'd go on and say things like "The Brock Commodore is the type of car which, after you've hunted it through a couple of really serious corners at the very best of your ability, looks over its shoulders at you and snarls 'Come on, mate! ... It's the pedal on the *right!*'

See? A free ad, and in prime time and prime space too!

Pretty clever, wouldn't you agree?

Yours with a concept,

Simon Kellar

PS. Recently, we took the Polarizer off my car and smashed a open to see what it was made up of. In the week that followed, a rear wheel bearing went, the pre load in the diff went and the rack & pinion steering went loose. Funny, isn't it!



Astrology

Dear Sir,

I have no doubt that most Skeptics (in Melbourne, anyway) would have seen the Nestles' advertisement on TV for one of their chocolate products, which utilises that ancient pseudo-science, astrology. Fortunately it hasn't been seen for quite awhile, but it raised a couple of points in my mind.

It is apparent that their use of astrology is a deliberate attempt to create an image for their product based on mysticism, so as to be in direct contrast with

their major competitors' advertising campaign featuring the late Professor Julius Sumner Miller.

Professor Julius Sumner Miller was famous throughout the world as an educator and scientist, and is it mere coincidence that this advertisement appeared so soon after his death?

If so, are they consciously pushing some sort of connection between the fallibility of science with the frailty of our existence as 'demonstrated' by the death of one of science's major exponents?

Whether the connection with Julius Sumner Miller is pure speculation or not, an important fact cannot be ignored; the use of astrology by multi-national companies to promote their products can only reinforce the false belief in its validity

and therefore must not be allowed to continue without some objection.

So I encourage all Skeptics to write because as Skeptics we must become as vocal and active as our opponents.

Stephen Huysing



Honorifics

Dear Sir,

I have read my first issue of *the Skeptic* (Vol 7, No 1) with the greatest interest, and venture immediately to enter the fray.

"Dr" K. J. de Veaux is correct.

The title "Doctor" is homographic, ie has two meanings. In medicine it indicates only that the person concerned has understood and remembered what he has been told. He is a "Bachelor" and the title is a courtesy one. In science, it requires a new contribution to human knowledge, which is a totally different thing. The distinction is well worth keeping in mind in strange disciplines.

I am unfamiliar with your editorial practice regarding the printing of the qualifications of your correspondents and, not knowing what to do, take the liberty of signing myself

**(Dr) H.H. Macey, BSc, ARCS, DIC,
MSc, PhD, FInstP, ChP, FAInstP,
FFIEng, CEng, FFI Ceram.**

The Value of Psychic Defence

Dear Sir,

I liked the review of “The Geller Effect” (Vol 7, No 1) but can’t agree when Mr. Harris says that millions of dollars have been wasted on researching psychic phenomena (presumably by the Defense Department).

Personally, anything that keeps the super-powers preoccupied with lost causes guaranteed never to kill, maim or even seriously inconvenience me, is money well spent.

Marta Sandberg



Poppersim vs Induction

Dear Sir

Anthony Garrett’s critique of Popper (Vol 7, No 1) on the issue of induction contains a couple of errors which presumably came from Stove’s analysis. First, Popper never claimed that science is purely deductive, simply that the process of testing theories involves deducing their logical consequences and then checking them against evidence. Secondly, he never held the view that science does not progress; indeed, the growth of knowledge has always been his major interest. In Chapter 10 of “Conjectures and Refutations” (1963), Popper wrote:

“I assert that continued growth is essential to the rational and empirical character of scientific knowledge; that if science ceases to grow it must lose that character. It is the way of its growth that makes science rational and empirical.”

Stove’s method of argument in “Popper and After” is very interesting. He starts with the unsupported assertion that Popper (also Kuhn, Lakatos and Feyerabend), do not accept that scientific knowledge advances and he then makes an elaborate analysis of the methods that they have used to foist their Ideas upon us. Certainly Kuhn, Lakatos and Feyerabend are well worthy of criticism because from the viewpoint of Popper and working scientists their theories are as useless as those offered by philosophers of induction such as Stove -But so far as Popper is concerned, Stove’s arguments proceed from a false premise.

I realise that working scientists despair of ever gaining sustenance from philosophers’ debates about scientific method, but I think they have something to learn from Popper if they are not taken in by critics such as Stove. Many eminent scientists, including Medawar and Monod, have endorsed Popper’s methodology and have urged their colleagues to take note of it as a practical guide for their own work.

Popper has generalised the old idea of problem-solving by trial and error to revive evolutionary epistemology. This was popular last century but faded away when physics came to dominate the philosophy of science. The evolutionary approach applies the principle of Darwinian selection to science and all forms of knowledge. Tentative solutions are advanced in response to problems and then a process of error elimination occurs, by critical discussion and experimental tests. New and deeper problems emerge from this process and the theories that survive at any moment make up the science of the time.

People who believe in induction usually shift back and forth between three theories. This of course creates confusion and makes induction difficult to refute. Induction (type 1) refers to the process involved in generating a general theory on the basis of particular observations; once upon a time there was supposed to be a logic of induction that could be developed to provide an infallible scientific method but this hope has lapsed.

Induction (type 2) refers to the process of establishing the numerical probability of a theory, based on its degree of verification or its empirical support. However, this has not worked out either, because a generation of brilliant philosophers led by Rudolph Carnap failed to deliver any formula that would furnish the desired figure.

Induction (type 3) is the belief that there are regularities in the world which ensure that the future will resemble the past. This type of induction tends to be the last resort of the inductivist after he has been persuaded of the logical deficiencies of types 1 and 2. (Anthony Garrett has sensibly not even tried to defend types 1 and 2). But this does not get us very far and the notion that the sun will rise in the east tomorrow hardly distinguishes Skeptics or modern scientists from Cro Magnon man or creationists. Belief in regularities or laws of nature does not constitute a scientific methodology or a theory to account for the growth of knowledge which is what theories of induction have always purported to do and this is what the debate with Popper is about.

This may be a lot to say about a somewhat esoteric matter. But if Skeptics believe that the rationality of

science depends on inductive logic of types 1 or 2, then this is rank superstition and they can be exposed to devastating criticism from anyone who bothers to do some homework or some critical thinking. The views expounded by Stove and other inductivists would destroy the credibility of any person or group which holds them as an adequate theory of science.

In contrast, Popper's ideas and especially evolutionary epistemology provide a powerful and wide-ranging battery of arguments to replace defective views of science which encourage people to expect more certainty than science can offer. These views confuse people and make it harder to explain that the true spirit of science and rational thought is the relentlessly critical and imaginative spirit of skepticism.

Rafe Champion



Skeptics and Religion

Dear Sir,

While I applaud your choice of logo with its implication that nothing in this world should go unquestioned, I constantly feel cheated when the greatest source of superstition, mythology and irrationality pervading this planet gets nary a mention in your journal. I refer, of course, to religion.

The exposing of fortune tellers, spoon benders and polarizer pushers is all very well, but surely this is chicken feed compared to the plethora of questionable beliefs associated with religion - any religion.

It seems to me that the time is right for the Skeptics to cast off the inhibiting shackles of religious taboo, stare the gods straight in the eye, and dare to question their very existence. Surely if our aim is to view this Universe through rational eyes, we must consider any apparently irrational arbitrary world view with skepticism. Why should religion, then, escape our skeptical gaze? Why this apparent hesitancy to question the most pervasive supernatural beliefs of all? Should we not be providing our impressionable youth with rational alternatives to the narrow, dogmatic, intolerant, simplistic and generally unsubstantiated world views arising from religious belief? Should we not be offering them a rational, scientific approach where asking the right question is more important than being provided with the "right" answer?

The need for rational debate on such matters was highlighted by a recent "Four Corners" program on

the rise of Charismatic Christianity in Australia. The only countering to the claims of these "newcomers" came from representatives of the more "established" religions... to my mind, a classic example of the pot calling the kettle black!

Surely, as true skeptics, we should have been up there offering our alternative, rational views ... or are we all truly comfortable leaving unchallenged such hocus pocus as charismatic healing, Armageddon, hellfire or speaking in tongues?

To question the specific beliefs of each religion (even assuming such beliefs could be clearly identified) would be too daunting for even the most committed skeptic. I would prefer to see an open debate, unafraid of questioning even the most fundamental tenets of most religions the existence of gods, of supernatural powers, the soul or the power of prayer, for example. It has, of course, been attempted before, but rarely in ways accessible to most of the population. I feel confident that such a debate would expose religion to be an effective yet dangerous placebo, actively pushed on a gullible public believing it to be "real" and "true".

Perhaps this letter will ignite a spark of true skepticism, initiating such debate in the pages of this journal, from where it may spread to save at least a few people from their own "salvation".

Perhaps fuel for this fire could come from fellow Skeptics recounting their experiences with the psychological and sociological consequences of unquestioning religious belief.

What say you all?

Kevin Murray

Barry Williams responds

Kevin Murray raises some interesting points in his letter, but I do not believe that he makes a persuasive case for Australian Skeptics to step outside its established frame of reference and become a theological debating society.

One of the basic aims of A. S. is the investigation of paranormal claims from a responsible, scientific point of view. To seek to challenge religion per se, from a responsible and scientific viewpoint is a bit like trying to play golf with a cricket bat. You might make some spectacular hits, but in the end, the tools are not really adequate for the job.

We can, and do, using the scientific method, investigate, specific claims made by religious organisations. Our successes in exposing the non-scientific nonsense masquerading as "creation science" was possible only because the Creationists

*sought to clothe their dogma in the cloak of science. —Scientifically, the testable claims made by these people are demonstrably rubbish. They are not even respectable theology. The best description of “creation science” I have heard is “Telling lies for God”. We have had some success in exposing the dangerous fallacy of “faith healing”, again because the claims made are testable. We have challenged the followers of Eastern religion to prove their claims to be able to levitate, which, of course, they cannot do. Similarly, we have analysed the phenomenon of “speaking in tongues”, both in *The Skeptic* and at two of our conventions.*

It is when we confront the fundamental tenets of religious faith that we find that science is an inadequate tool. What test can possibly be applied to prove, or disprove, the existence of a supreme being? What parameters do we measure to determine whether a soul has been saved? Life after death appear to be an irrational, though understandable, belief but how can it be proved, one way or the other? How does one objectively describe the characteristics of “good or evil”?

Among reasonable people, we can win the argument with the proponents of astrology, because the best evidence supports our case. In the matter of the salvation of souls, to my knowledge, there is no evidence either way, and no way that any such evidence can be found.

While there are organisations whose charters require them to challenge religion and to present rational alternative paradigms, I do not believe that A. S. is such an organisation. In my view, we will continue to adhere to our aims but we will diminish our effectiveness if we waste our time in the fruitless pursuit of untestable religious dogma.

Vol 7 No 4 - 1987

Sensationalism

Dear Sir,

The item in the Spring 87 issue of *the Skeptic* on the *Sydney Morning Herald's* coverage of the Colossus of Rhodes story prompts me to offer a suggestion.

The reason even ‘quality’ papers like the *SMH* treat

clairvoyancy stories in the way they do is that they believe it sells papers. Perhaps if they form the idea that a skeptical treatment might also sell papers they may change their attitude.

What might change their attitude? How about a lot of letters protesting against the kind of credulous treatment that the story got? Perhaps a good number of individual Skeptics should write to the paper concerned, not as representatives of the Australian Skeptics, but as individuals. Enough letters might convince the paper that a change of attitude might be beneficial.

I must add though - beware of the law of libel. If your letter is libelous and the paper prints it, you maybe sued as well as the paper. In defense of the papers, it must also be said that they live under the constant threat of being sued - but this doesn't go near to justifying the *SMH's* credulous treatment of the Colossus story.

Richard Humphrey



Wards' predictions

Dear Sir,

I was interested in Fallible Futures (Vol 7, No 2), the survey of Tom Wards' predictions for 1986 and 1987, as I had previously monitored his January 9, 1986 *Australasian Post* predictions for South Australia (published in our local magazine, *The Southern Skeptic*, February 1987).

Until I read the follow-up on his WA, ACT and Queensland predictions, I was under the impression that his South Australian performance was exceptional. Of about 12 definite and 7 indefinite predictions, he had exactly one success: “South Australian wins mammoth dividend in Pools or Lotto.” However, with 150 draws each year, this prediction was fulfilled several times for every state.

One of the forgotten predictions for SA in 1986 was “An Adelaide horse will win the Melbourne Cup next year.” Since the running of the Cup, Wards has claimed to have actually named the winner - which had no connection with Adelaide.

With regard to his January 1987 prediction, “I feel that there will be a run by Andrew Peacock as Leader of the Opposition and he could easily beat the Hawke government”, he has now remembered one of his earlier predictions, and during an interview on local

radio station 5DN one week before the July elections he stated “I ... also said that Andrew Peacock would never be Prime Minister of Australia”.

On the same program, he did say “It could be Pat Cash’s first Wimbledon”, which can be added to his tally of successes; however, it should be borne in mind that Tom Wards is a “good news prophet” and not given to predicting misfortune. (Unlike many seers, he has said that there will be no nuclear war in the next 100 years. Given his track record, this may be cause for concern.)

Allan Lang



Philosophy of science

Dear Sir,

In the interests of accuracy I write to correct Rafe Champion (letters, Vol 7 No 3). The stances he criticises originated from me at least as much as from the reference I provided (D. C. Stove), and I maintain them both.

The problem is that Popper is extremely skilled at concealing the more absurd consequences of his philosophical position, as highlighted by Stove. But if Poppers deductivism extends only to the claims that one should deduce the consequences of a theory from its tenets and then test them, where on earth is the big deal? Why is Popper, for good or bad, the most influential philosopher of science of the age? The statement is quite correct, but is an obvious triviality. There is more to Popper’s deductivism than that.

It is also obvious to anyone with a sufficiently broad view that the similarities between Popper, Kuhn, Lakatos and Feyerabend as philosophers of science far outweigh their differences, internal squabbling notwithstanding.

Mr. Champion is correct that a good deal of confusion surrounds the word “induction”. Inductive logic is that system of reasoning used in the absence of sufficient information for certainty (in which case deductive logic takes over; it is therefore a special case of inductive logic.) Induction is related to probability theory, in which one lists the probabilities, based on the information at hand, of the conceivable outcomes.

I do in fact adhere to Mr. Champion’s “induction type 2”: that one can in principle establish the numerical probability of a theory being correct, based on the available information. Mr Champion rejects this idea because the search for the appropriate formula has

allegedly failed. This is untrue: Bayes’ rule of probability tells us how to update the probability of a hypothesis in the light of a fresh piece of information, and recent advances are now telling us how to assign the initial (“prior”) probability from the initial information. It can be done, in principle, but only very simple problems can currently be tackled. This gulf between principle and practice, not any conceptual prohibition, is the true reason why no one has yet written down the probability that any given theory is correct.

Mr. Champion has some sympathy with the exasperations of most scientists over philosophical debates, but goes on to advocate they could learn something from Popper. No less a luminary than biochemist Sir Peter Medawar agrees. But I have never, ever seen any convincing evidence for this statement; and in fact there is a good reason not to believe it. Creativity including scientific creativity - always involves a leap in the dark. Ask anyone how that idea occurred to them! They won’t have a clue. Once the theory has been formulated, its consequences can be deduced and tested, as all agree. But unless the act of creation is formularised - and I cannot think of a less likely prospect the relation between science and philosophy of science will remain a one way road.

Despite all this, I wish to broadcast a plea not to let skepticism become overly diverted into philosophical issues. The essence of skepticism is really quite elementary, and it is our task not to elevate the plane of the argument needlessly, but to repeat the basic arguments against astrology, creationism and all the rest over and over again, no matter how tedious this becomes. It is not always easy to do; but it is essential.

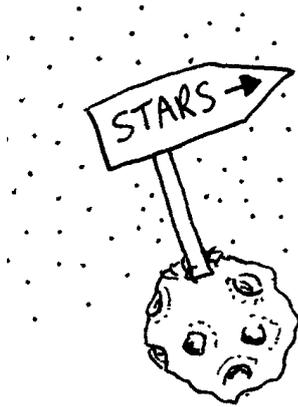
Anthony Garrett
School of Physics, Sydney Uni



Star signs

Dear Sir,

Many thanks to Sir Jim Wallaby (what sign are you really?) for confirmation of something that I always suspected; I am an Ophiuchan. I knew that I was close; I had found that the Sun on November 26 (my birthday) was very near the Scorpio/Ophiuchus border. Sir Wallaby gives the actual entry date as November 25; hence it is with great pleasure (and accuracy) that I can now reply to the question “What’s your star



sign?” with the statement “I was born with the Sun in Ophiuchus”. A skeptic’s delight!

I suppose it should be pointed out in the astrologers’ defense that the boundaries between the constellations are really just as arbitrary as those

between the signs.

Constellation boundaries were first proposed by Eugene Delporte in 1930 and were formally adopted by the International Astronomical Union. Of course the problem is that constellations have no natural boundaries. So I am as much an Ophiuchan due to Delporte as I am a Sagittarian due to astrologers 2000 years ago; the sky hasn’t much to do with it.

Sir Wallaby’s discussion reminds me of the fuss that was made a few years ago about the “Dawning of the Age of Aquarius”. This was based on the movement of the vernal equinox (the position of the Sun on March 21) from Aries where it was placed around 100 BC, through Pisces and soon into Aquarius. However given that the equinox spends $25,000/12 = 2150$ years in each sign, it follows that the Age of Aquarius won’t start till the year 2050 AD. And of course it won’t move into the *constellation* Aquarius until around 2700 AD. Looks like they celebrated a bit early! By the way, isn’t it interesting that the same people who ignore precession on the one hand, embraced it so readily when it came to the “New Age”?

David Widdowson



Skeptics and Religion II

Dear Sir,

the Skeptic 1981, No 1, stated that one of the aims of the Australian Skeptics was: “To publish articles, monographs and books that examine claims of the paranormal.”

It is within the frame of reference of the Australian Skeptics to examine the paranormal claims of any organisation, be that organisation a small scale cult or a large scale religion. Statements to the contrary (*the Skeptic* Spring 87) are in blatant contravention of the

expressed aims of the Australian Skeptics.

It is patently untrue that the paranormal claims of religious organisations are unable to be tested scientifically as the reply to the “Skeptics and Religion” letter suggests. Why for example can’t the supernatural beings postulated by religious organisations be tested in the same way as Big Foot, the Loch Ness Monster, or aliens from outer space?

One might say for example that in spite of the fact that millions of people have trekked over Mesopotamia, no-one has heard, seen, filmed or taped the cherubim and flaming sword reportedly placed east of Eden to guard the way to the tree of life.

Or, perhaps one could say for example, that there is even less evidence for the existence of Shiva the Hindu god of destruction and renewal (that is if there is any evidence at all) than there is for the Tooth Fairy or the Abominable Snowman. After all, when was the last time you or anyone you know saw a five faced, four armed man with a third eye in the middle of his forehead?

Many of the 10,000 US (and a smaller number in Australia) annual child suicides leave suicide notes which echo the paranormal assertions of fundamentalist television evangelists: ie that the world is inherently evil and about to be destroyed, and that the faithful will live happily ever after with God when they die. Every year such paranormal theories, mistaken for fact, push thousands of depressed or confused individuals over the edge to oblivion.

It is therefore a matter of the utmost importance that the Australian Skeptics conform to their stated aims and investigate such matters. Failure to do so is not just an abrogation of the Skeptics stated aims; it is tragically negligent.

Kevin J. Black



Dear Sir,

Barry William’s reply to Kevin Murray (*the Skeptic*, Spring, 1987) was most unsatisfactory and unconvincing.

As one sage said so rightly: “Healthy skepticism is essential to the scientific spirit”.

However, in my view, consistency is just as important. Why should some skeptics worship the sacred cows of religion and medicine while scoffing at astrology and fortune-telling?

All topics should be valid subjects for discussion, criticism, and if need be, condemnation.

The belief that a formless spirit created the universe out of nothing is just as absurd as the belief that one's fortune depends upon a card in a pack. Similarly, the belief that the administration of a known poison to a sick person, is just as stupid as the belief that the position of the stars at certain times influences human affairs.

True skeptics should be impartial. Selectivity in criticism is a sign of illogicality.

Henry Johnston



Dear Sir,

With reference to Letters on page 32, Vol 7 No 3 of *the Skeptic*, I agree with Kevin Murray that an endeavour should be made to expose the great confidence trick, called Religion, that is being perpetrated upon mankind.

Barry Williams' response indicates that he is a confused gentleman.

I've never heard of an "established frame of reference" for Skeptics. Has Mr. Williams just invented it?

And if Religion is not based on "paranormal claims", I am a floating angel.

Furthermore, we do not need "to prove, or disprove, the existence of a supreme being", of a "soul" or of a "life after death". The burden of proof of the existence of these idiotic superstitions rests with the priesthood of the churches, and this basic truth should be broadcast in the strongest possible terms.

In view of the fact that thousands of priests infest the Earth, injecting their poison into the brains of young and old, it must follow that they, and their teachings, are a greater menace to the mental and physical health of human beings than the antics of a few psychics and spoon-benders.

Priests and their maniacal mouthings are therefore legitimate targets for skeptical investigation and criticism, irrespective of whether or not "there are organisations whose charters require them to challenge religion".

We skeptics are eager to unmask the trickery that seeks to dupe the gullible, and we do not fear the power of organised Religion.

If we don't attack and destroy now, using reason and mockery and laughter and any other means at our disposal, our descendants may continue for another 10,000 years under the domination of the witchdoctors. Is that what we want for our children and our grandchildren?

Kevin Murray is not only a skeptic, he is a super-skeptic. We should adopt his suggestions.

John Fitzgerald

Editor's note: For the benefit of Mr. Fitzgerald and others, there is an "established frame of reference" for Australian Skeptics -the Aims of Australian Skeptics, as referred to by Mr. Black above. Readers should note that these aims were revised at the last Skeptics Convention in Canberra during April 1987, with the view to eliminate ambiguities and, in fact, widen the scope of Australian Skeptics' areas of activity.

Vol 8 No 1 - 1988

UFO Sighting

Dear Sir,

From increasingly skeptical readership of UFO industry publications, the repetitive discovery of their rather endearing reliance on the bafflement of 'authorities' and the ubiquitous 'scientists' who cannot explain (i.e. there aren't enough facts available to make a guess) as a long hand for "It was a real space ship from the stars without any doubt but 'they' can't really admit it", I had thought that 'expertness' or at least a familiarity with what is available to be seen in the skies would negate the possibility of seeing 'unidentifieds'. However, a recent personal experience has dispelled this belief.

A bit before 8am on the first foggy morning of approaching winter (April/May), I was walking down the hill into the Wollie Valley to Bexley North station [Sydney] to go to tech. The last 500 metres is an uninterrupted footpath and with a wooded burn on one side and woodlands to the other visibility did not seem to be a problem as you could see off into the sea haze rising off Botany Bay in the distance. Flying soundlessly and perilously low over the station towards me I saw a foreshortened view of a smallish passenger jet with company logo lost in the mist. Looking again, the shape was shorter and fatter, a safer distance away and quite obviously a silver white-sided Bond airship gliding with its engines off. If I had tripped at this time or looked away I would have been prepared to swear on a stack of Bibles that an airship it was, and even make a good guess at the number of portholes on its sides.

However, I did not trip, the object again changed shape into a ball, rose almost vertically and then totally

reversed its direction of flight. Now compare my sighting with one observed over Russia in 1942: "Out of a cloudy sky appeared a huge cigar shaped object, something like a Zeppelin, but much bulkier and rounder at the front. It was of a dull silvery colour. It remained stationary for at least a minute ... What made it so amazing was the total absence of engine noise. It shot off at an upwards angle at terrific speed and within seconds was out of sight, again with no noise and no vapour trail ... the clouds were not disturbed by its passage through them" - 2pm weather warm, misty and light high level cloud cover. From *Flying Saucer Review*, Volume 24, number 3 (1978), page 5, titled "1942 sighting on the Russian Front". For those who are still reading, I continued on to the station where it became clear that I had been seeing a large and compact flock of birds circling in the early morning sun. Walking near the bottom of the Wollli Valley and looking up the rise, by perspective the size and distance of the flock was such that it could seem to be a small airliner at 200m, an airship at a few kilometres or a flock of birds at 750m.

I own some shares in the Bond airship, and a main flight path is visible walking down into the valley. I leave it up to the reader to assuage the degree that familiarity played in ascribing 'explanations' to what I saw; clearly a small amount of knowledge taketh away true objectivity.

Garry P. Dalrymple



Astrology

Dear Sir,

I do hate to disappoint David Widdowson. If only he had been born in a better age, like around 100 BC, then he might indeed have been born when the Sun was in the sign of Ophiuchus. However, time marches on and takes its toll, especially of astrologers who forget about precession. The constellation of Ophiuchus represents a man encoiled by a serpent; Scorpius should be a much better sign to be born under - it even actually resembles what it is supposed to depict (have a look at the eastern horizon on an April evening). Imagine, though, to have been born when the Sun is partly in the constellation of Cetus - it only just scrapes across one corner of Cetus with only a

fraction of the Sun's disk ever being in the constellation at all. This happens for a few hours on March 28th each year, exactly when depending of course upon what year it is, since the calendar slips around by a day every four years and has to be put right, and also depending upon where you are on the Earth, since the Sun appears in a slightly different part of the sky if you move across the Earth's surface. (Thus, if Cetus were a luckier sign than Pisces to be born under, at a given time on March 28th one year it might be luckier to be born in, say, Switzerland than in, say, Ethiopia.)

Of course, there are a great many more corrections to worry about, in order to accurately locate the Sun in front of the distant stars. Nevertheless, some people born on March 28th can truthfully and approximately say that they were born, at least partly, under the sign of Cetus (partly under the sign, of course, not partly born). Such people should hold in high esteem the committee of men which in 1930 decreed that the constellation Cetus did in actual reality have the shape and location as shown on star charts, and should be grateful not to have been born in Egypt or China or in any of a great number of places where the constellations are different anyway, in spite of the decrees of the 1930 IAU committee. Cetus represents a sea monster, and people having anything in common with this constellation would be large but faint and would contain several features of interest which can be seen with a telescope. It is quite clear that some people are born at luckier times than others. For example, my own daughter who was born on April 7th, since April 5th of that year was an unlucky day to be born (because it was Easter Tuesday and the man who did Caesarian sections was on holiday and his stand-in was reputed to be clumsy). When I myself was born the doctor held me upside down and hit me until I screamed; clearly this was a particularly unlucky day. It would be interesting to have been born on February 24th 1987, when on a unique occasion everything and everybody was shot through by a large dose of neutrinos from a supernova. Mere planetary influences are far too trivial; I have invented a whole new pseudoscience of macho-astrology, and hope to make a large amount of money from it. Send your contributions to:

Steve Roberts
Canberra Skeptics



Santy

Dear Sir,

I refer to the informal discussion held at a singular residence yclept Wallaby Manor re the nocturnal activities of Mr. S. Claus.

It seems that there are divers souls within your circle who take leave to doubt the beneficent activities of Mr. Claus.

The reason for the success of Mr. Claus is quite obvious to all right thinking people, e.g. me. What do you think Mr. and Mrs. Claus do in the off-season? Eh? Not to put too fine a point on it, they indulge in the ultimate form of Creation Science. Now cocky, this means that after about 1.73×10^2 lunar months, there are approximately $1.73 \times 10^2 \div 12$ red robed, chin fuzzed people of varying sizes speeding about the galaxy delivering largesse (this is pronounced large S, and is not to be confused with the Big A).

These little members of the family Claus are referred to as Subordinate Clauses.

Here is the answer ... all these jokers have territories, which they service. Each has a conveyance hauled by eight reindeer, the names of which are Border, Lendl, Hawke, Carleton, Khomeini, Fosters, USS Missouri and Lurgi the Wonder Dog.

Lurgi is the official drinker of the lemonade left by the expectant children, hence the exceptional growth of the celestial trees.

I hope that this treatise has cleared up the mystery. Don't clap ... just throw money.

Cosmo Plinge

Editor's note: This entry to our Santa Claus competition did not win because it incorrectly stated the name of one of the reindeer, and because we sincerely believe that 'Cosmo Plinge' is a pseudonym.



Creationism and Energy

Dear Sir,

The last issue of *the Skeptic* (Summer 1987) quoted the Catholic Education Office booklet "The Bumbling, Stumbling, Crumbling Theory of Creation Science" where it makes the statement that the creationist claim that the speed of light was 200,000 million times faster

at creation than today implies "The energy from lighting a match would be 40,000,000,000,000,000,000,000 times greater, since the energy depends on the speed of light squared". Presumably this comes from the Einstein mass-energy relationship. This statement is impressive, but I would rather see *the Skeptic* challenge it rather than uncritically report it, because in fact it is a classic example of using a physical relationship out of context which Henry Morris himself would be proud of. While the creationist contention that the speed of light c has changed radically during even recorded history is indefensible, it should not be attacked by indefensible statements of our own, because exposing the weaknesses of our argument (though probably beyond creationists) seems to strengthen their case.

This can be remedied by using valid physical arguments, or at least less invalid ones. For example, unless they also fiddle with the elementary masses of electrons, protons and neutrons, the Plank constant and the strong nuclear force, then the energy emitted by the Sun must increase by a factor of 4×10^{22} (as the energy is derived from conversion of nuclei which is independent of c) so the Earth would have to be 2×10^{11} times further away (to keep the temperature the same), increasing the length of the year by a factor of 9×10^{16} (by Kepler's laws) and this quickly leads to the conclusion that the universe must be even older than cosmologists think.

The problem with creationist style thinking is that they treat the speed of light c as an independent phenomenon which can be fiddled to suit their theological convenience. In fact, electromagnetic phenomena such as light are well understood and are part of physicists' integrated view of the universe. To examine the effect of striking a match, c is the inverse square root of the product of free space, governing the strength of electrostatic and magnetic phenomena respectively. Although the creationist "theory" does not permit us to tell how these might change independently, if their ratio is kept constant (thus preserving another physical constant called the impedance of free space), then electrostatic phenomena (which includes the strength of chemical bonds and hence the energy emitted during chemical reactions) will be increased by a factor of *only* 200,000 million. The mass energy relation, which was incorrectly applied above, then tells us that the mass of products is reduced to account for the energy emitted, by an amount smaller by the above factor than the amount observed today. Mind you, the smaller increase in emitted energy is still enough so that striking a match would create an explosion in the megaton

range - the larger factor quoted at the start of this letter would imply a global catastrophe.

Unfortunately, the creationists still have an out: no doubt they will claim that Adam and Eve did not use matches. More reasonably, they may note as the activation energy for chemical reactions would be increased by the same factor, matches would not work anyway. Of course, the same problems applies to other chemical reactions, such as those which make life possible. One can point out an infinite number of such absurdities to demonstrate that if the speed of light has changed significantly, that the universe would also change in a way which people would have noticed (even though they could not measure c). I doubt that one could convince a creationist of that fact, however. I feel sorry for them: in their rapt contemplation of their childish, vindictive, irrational god, they render themselves incapable of understanding the universe; and if a Creator exists -a subject on which I am open-minded, as physics has its limitations - they will never comprehend how well He has wrought.

Andrew Parle

PS. Re article on astrology by Sir Jim R. Wallaby in the Spring 87 issue: the constellation Cetus is the Whale Cygnus is a Swan (and one of the few constellation names which looks plausible).

PPS. Re Santa problem: the answer is obvious - he is (are?) twins. PPPS. If Ramtha is from Lemuria, does it not follow that he is (was) a lemur? If so, then his channel, Ms J. Z. Knight, could be arrested, for it is surely illegal to import dead lemurs, and Ramtha is obviously very dead. By the way, what does the initial Z stand for?

Editor's note: We're not sure what the "Z" stands for, although zoophyte, zoril and zygom (the last metaphorically, of course) would be good starting places.



Brock's Polarizer

Dear Sir,

I have just read Anthony Garrett's review about Brock (Vol 7, No 4). Oh boy, do you need to be straightened out!

I'm the person who wrote the letter about the Polarizer which you misguidedly refer to as "tongue in

cheek". But more of that later. In your review of the book (foul and bile ridden it is too) you came very close to answering the questions about the Polarizer. You mentioned the part where Brock intimates that there hasn't been a machine built yet to physically measure its claimed effects. I know what this machine looks like. It's 6 feet tall, has two arms, two legs and a bum to sit on. It has a pair of eyes with which to peer out the windscreen. It has appendages on the extremities of its arms and legs which are just brilliant for feeling how a vehicle is traveling. It's called a person who knows how to drive a car to the max.

Let me throw a theory at you. This is what I want you to do:

1. Get some old car magazines, or videos that have pictures of Brock racing in his pre-Polarizer days.
2. Get some pix of this year's races.
3. Look at Brock's driving style in 1, and compare it to other drivers in both 1 and 2.
4. Look at Brock in 2.

What you'll see is that in the old days, Brock had the same style of driving as his peers, and indeed his contemporaries now (Is that one of my favourite tautologies? I can't tell.) BUT, see his style now! Even when he's setting an ultra-fast qualifying time in practice, his arm (right arm) rests casually on the window sill! The car is so much smoother and balanced than anyone else it is hard to just say "Oh well, he's got better tyres (he hasn't), a stronger engine (ditto), etc".

Listen, I was in the pits during qualifying for the Dulux Dozen on the day before the Castrol Sandown 500 (September 87) and it was so obvious that the car was so much easier to drive than anyone else's that all the racing drivers watching reached a consensus of opinion that he must have had a cardboard cutout of an arm taped to the door! They were all amazed that on a wet track, with only one flying lap to be recorded, he was cruising round with his bloody arm hanging out!

I don't know whether I'm banging my head up against a brick wall here. It has been my experience that a person either has a feel for driving or they don't.

My point is this. I believe that some credence must be given to the view that there isn't a machine or measuring device yet built that can really attest to the claimed benefits of the Polarizer. After all, how did one know if one had enough air in the tyres (when pneumatic - sp?) tyres first became available before cheap pressure gauges were invented? You can't see the tyres from the drivers seat, so you had to FEEL it. If you weren't any good at noticing subtle changes in a cars behaviour, you don't find out till you're running

on the rim.

I thought it was always the brief of the Skeptics to only debunk something if it was properly measured.

And another thing, did you know that some of the major players in Tuckey's book have come right out and DENIED some of the stuff they were quoted as saying or having done? So the matter remains unresolved. If the Skeptics can get someone like Ayrton Senna or Glenn Seton to do a back to back test on cars with/without the Polarizer (real drivers, test drivers, not motoring journalists with vested interests or stuff like that), publish their findings, that will put the matter to rest as far as people like me are concerned.

Simon Kellar

Editor's note: This letter was originally addressed to Dr Garrett, and is reprinted here with the permission of Mr Kellar and Dr Garrett. Following is Dr Garrett's reply:

As stated in my review, the Polarizer is not fitted to racing vehicles. Therefore it makes no sense to attribute any improvement in Brock's results to it. Claimed improvements of 30% with Polarizer fitted are not marginal, but easily detected by almost any driver or test-bed. Australian Skeptics supports field tests of the Polarizer, but notes that the revised instruction set, stating the Polarizer takes time to run-in and is useless if ever removed, makes blind testing impossible. Further, Australian Skeptics wonders why has Peter Brock refused to discuss the Polarizer if it is such a breakthrough? Effects of the magnitude he claims for a magnet-and-crystal device would have been part of scientific lore long ago if they really existed. I am, of course, interested in your statement that several persons have denied their quotes in Tuckey's book. I would be grateful for details.



Skeptics and Religion III

Dear Sir,

We seem to be contemplating taking on Religion. Before we do, let's note that we haven't been entirely successful with con games that were simple uncomplicated rip-offs. A lot of people out there cherish their gullibility and don't want it interfered with.

It seems to me that religions occupy a certain social

niche and that to condemn them out of hand is to take up a quasi-religious position oneself. Skepticism, as a religion, isn't any better than Christianity or Buddhism. Most people are disposed to be skeptical about the paranormal claims of religion, and are only really much influenced by it either when it makes strong moral points which strike some chord, or when it has strong political power. Now I have no cause to war with an organisation that uses words to propagate charity and kindness and decency. For some reason, that has been the preserve of the religious organisations; the rationalists and humanists don't organise care for the poor and the helpless. It has been a long time since bigots could burn me at the stake for arguing with them, so again, I have no quarrel with the established churches as at present organised, except that I do not accept their superstitious substructure. The superstitious element is only one component, and the longer the religion survives, the less the irrational part of it really matters.

The enemy is not 'religion' as such, for that means lots of things - a commitment to decency and charity and kindness, for example, as well as a harnessing of superstitious awe into respect for life and a wonder at the Universe; a respect for truth and justice, a number of ideals that the most skeptical can admire. I would prefer to work with organisations dedicated to human good than try to tear them down, because it is contrary to experience that the mass of humanity will replace the relatively harmless superstitions of organised religions with anything better - all the evidence is that they go to things which are far worse.

So by all means let us condemn lies and trickery and point them out to all who will listen, let us attack hypocrisy and deception wherever we find it. But it is foolish to tear down a mythology which gives point to peoples' lives, unless we can replace it with something better; you leave them as victims for the next charlatan who comes along and who may well have fewer scruples than the present lot.

What is crucial (!) is that we distinguish clearly the proper domain of religion. It has nothing to do with what the world is actually like, that is the domain of science. It has everything to do with what is *important*, with how people ought to behave, with values and ideals. Science says nothing about such matters, quite properly, but that does not mean we can leave a moral vacuum by disposing of a great deal of wisdom at the same time as we throw out the superstitions. I would like to be able to tell people to think for themselves, but the awful truth is that most people aren't very good at doing that - else there'd be no need for religions, bureaucracies or government.

We really have a hard problem here: if people need a crutch, it's cruel to kick it out from under them, and if people are brought up with crutches they come to depend upon them. But how do you train children to be honest and truthful? "Tell the truth or I won't love you; tell the truth or nobody will love you; tell the truth or God won't love you. Tell the truth or you won't love yourself." Which of these is 'true'? The preservation of an orderly society depends on threats of one sort or another, and the individual has to pay a price in freedom of action to gain the sort of order which gives him more freedom in the long run. I don't see a society based upon pure rationality as having much of a future. The Soviet Union is a society based on everybody working for the common good, and it needs a police state to keep it in operation. A society based upon the proposition that most people are selfish and stupid and ignorant may not flatter us so much, but it has more chance of functioning. So until somebody has a plan to replace the existing religions with something better, I'd prefer not to try to pull them down.

Having said that, I agree entirely with John Fitzgerald [Letters, Vol 7, No 4] that the existence of a supreme being or a soul, or survival after death, are all paranormal claims lacking in any support, and with Henry Johnson who remarks that the idea that a formless spirit created the Universe out of nothing is absurd. (On the other hand, the theories of the physicists and cosmologists are also pretty unlikely, the difference is that you can argue with them and examine the evidence and they don't mind. In fact, they seem to enjoy it, while the other lot are pretty shocked if you ask for evidence.)

I don't think we need to attack religions, and I doubt if it would do us any good to try. We should, of course, encourage doubt and questioning. It seems to make for a healthier life and more tolerance, on the evidence of history. Let's laugh at credulity, and let's oppose with all vigour the idea that faith is desirable: only the conman benefits from unquestioning acceptance. Let's do everything to make sure the man of religion sticks to his proper sphere and doesn't start telling us how the world works when he manifestly doesn't know, but let's at the same time support him when he spreads ideals we can admire. That way, religions might evolve into something less silly and unbelievable. They have, after all, come quite a long way already.

Mike Aide

Vol 8 No 2 - 1988

Gish/Plimer Debate

Dear Sir,

As a confirmed skeptic, I entertained the fondest of notions that your "journal" might lend something positive to the almost extinct art of logical and civilised debate. I was not prepared to demand of it scintillating prose and affable good humour (I would have considered them as a bonus). Certainly I was not prepared for the bitterness, the sarcasm, the vitriol or the outright ridicule directed against all religious believers. It was not so much that I was personally offended by the abuse - Catholics generally have learnt to develop pretty thick skins over the centuries, and I believe I have a reasonably strong intellectual grasp of my own religious beliefs. (I have always been amused and bemused by semi-educated religious antagonists who would cynically dismiss towering intellects like Chesterton, Aquinas, Newman, Galileo, Pasteur and the like.) As I say, it is not principally the churlish, gratuitous insult that offends sensibilities (and offense is clearly intended) but rather the fact that a journal ostensibly designed to inform and enlighten should resort to such shabby irrelevancies. As I have said, I did not expect the prose style of Muggeridge or the gentle good humour of Chesterton but, given your thunderous demand for rational discourse, I think I was entitled to expect a higher standard of "debate".

But really, my worst fears were confirmed when I attended the creation vs. evolution "debate" sponsored by your organisation and held at the Uni NSW some three months ago. Here was my chance I thought, to see and hear the pride of the skeptics strut their stuff.

Dr Duane Gish, I knew, would be a worthy proponent of the creation position. I was not familiar with his local opponent but, given the obvious contempt the skeptics had for creationism, I presumed he would be a knowledgeable and skilled debater.

Not only did I see and hear a visiting academic harangued, abused and even slandered in the most shameful exhibition of boorishness imaginable, I did not hear one *positive* argument in favour of the evolutionist position; all of this of course in the halls of academe, a centre of learning and the very bastion of free speech and civilised discourse.

Sadly, worse was yet to come. Gish's "opponent", whose name thankfully I have forgotten, was himself

a “teacher” (My God!). Before a local and an initially sympathetic audience he was virtually booed off the podium amidst shouts of “What about the subject” and “What about evolution”. Unfazed, he abused Gish to the very end. It was disappointing, though reassuring, to see so many of the audience (myself included) gathered around Dr Gish at the end of this fiasco, congratulating him for demolishing his “opponent” and apologising for the disgraceful treatment meted out to him.

Courteous to the end, he assured us he would not regard such treatment to be indicative of the level of debate generally in Australia.

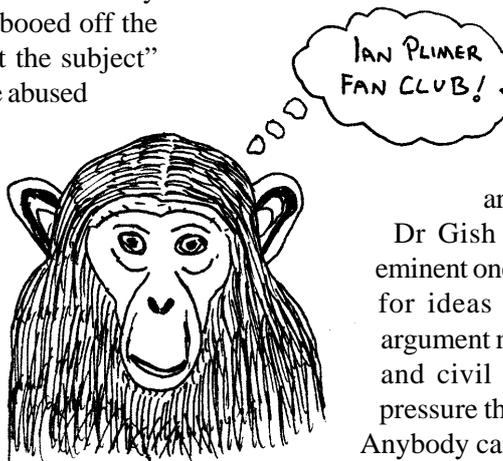
Unbelievably, even worse was yet to come. I spoke personally to the moderator after the debate was over, puzzled as to why no verdict was given, no winner declared (something I have never experienced before in a debate). I was truly amazed to be informed - quite calmly that he had been instructed by one of the organisers not to declare a winner - yes, instructed. Astounded, I asked him to direct me to the “gentleman” concerned, which he did. There had to be some mistake, some misunderstanding I thought, and this fellow would clarify things. In short, this character admitted quite openly his involvement and his directions to the moderator. He believed, he said, there would be “trouble” if the local lad was declared the loser. He did not elaborate and I was not interested. Uncharacteristically I hurled an epithet at him expressing my contempt for a University that could debase itself so easily.

I should add that I had a witness to all of this extraordinary behaviour - the whole sordid business.

These final admissions strengthened my earlier suspicions that “question time” was also a set up - preselected questioners (mainly Uni staffers) with pre-arranged questions on the “anti” side, but a random selection of procreation questioners - petty stuff really compared to the intellectual hooliganism displayed earlier.

It’s sad really that the skeptics, for all their glib rhetoric, are essentially no different from the mountebanks and frauds they rail against. Their own base ideological commitment and the cruder forms of argument clearly frustrate the ends with which most reasonable people would agree. Confidence in one’s own position is not enough. In the end, nothing really beats rational debate.

As far as evolution is concerned, it is obvious that



the atheists (and the skeptics) feel as if they are under intellectual seige. The idealogues aside, more and more open-minded men of science are embracing creationism and Dr Gish named some of the more eminent ones. Nevertheless, the struggle for ideas and the need for ordered argument must be bound by intellectual and civil parameters. Under a little pressure the skeptics failed hopelessly. Anybody can be wrong. The intellectual cheat, however, is in a category all of his own and it is for that reason I have not renewed my subscription to your journal.

Yours cordially,

Peter Burt

PS. If perchance you missed the “debate” to which I refer, I can tell you that it was televised (videoed). It would be surprising if they have not destroyed all existing copies, but, if not, I urge you to take a look. As for me, I would pay a king’s ransom for a copy.

Editor’s response: *Although Mr Burt’s opening remarks seem directed at this journal rather than at the debate he criticises, enough points are made of the Skeptics to warrant a reply.*

Firstly, he accuses The Skeptic of “outright ridicule directed against all religious believers” We find this complaint hard to understand. It has been made very clear that we would not attack religion for its own sake except where claims are made of scientific endorsement or which can be scientifically tested (see President’s Column, Vol 7, No 4). The debate referred to (reviewed in this issue) was organised not by the Skeptics, but by the Evangelical Apologetics Society, a Christian organisation with links with the various churches. The EAS invited the Skeptics to put forward a speaker to debate Dr Gish, which we did. The EAS organised the hall (the Sydney Town Hall had originally been suggested) - the University had nothing to do with the debate except to lease the use of one of its buildings. The audience was predominantly pro-creationist and, with all due deference to their equanimity, not “initially sympathetic”. As far as can be ascertained, no-one with authority to act on behalf of the Skeptics “instructed [the moderator] not to declare a

winner". Although it is not certain, it is quite likely that Mr Butt was talking to a member of the EAS who "admitted quite openly his involvement and his directives" We happily stand corrected if this is not the case, but in the meantime we do feel that Mr Burt is unfair in his criticism of the Skeptics on this point (and of the University for that matter, to whom he addressed an epithet!). Mr Burt does not say to whom he spoke, and it is unfortunate that, as a confirmed sceptic, he did not ask his informant to elaborate, which might have clarified matters.

Mr Butt also does not name those "open-minded men of science" who are turning to creationism.

The topic of the debate was "Evolution or Creation: Which is the Pseudo-science", which is what was debated on both sides, and not a defence of the speakers' particular belief. While we agree that Dr Plimer did not defend evolution, and did not intend to, it should be added most stringently that Dr Gish adduced not one scientific fact to support his creationist position.

The Skeptics were not involved in a pre-organised question set up. Presumably for Mr Burt to claim that such pre-arranged questions (if there were any) came mainly from Uni staffers, he asked each questioner their occupation, which is admirable dedication to discovering the truth. It is therefore a shame that he makes such fundamental errors of ignorance elsewhere in his letter.

As to being "no different from the mountebanks and frauds", one sees few pro-Skeptics letters in the creationist literature; despite this, we have deemed it appropriate to publish Mr Burt's letter. Finally, if Mr. Burt would care to send us a king's ransom, we will provide him with a copy of the videoed debate which, while not in our possession does exist (several versions in fact by different crews). Video burning, like its literary counterpart, is not a practice the Skeptics promote.



Creationism

Dear Sir,

I am writing in response to Andrew Parle's letter in the Autumn 1988 issue of *the Skeptic*. In his letter Parle notes that my application of Setterfield's speed of light factor to the energy release on formation of chemical bonds should not be the square of the speed of light but simply the speed of light. Parle points out

that it makes no difference to the argument. For my purpose, I simply applied the Setterfield factor to the 4 electron volt energy release in the formation of a typical combustion product, carbon dioxide. The result was well past the 200 megaelectron volt energy release in the fission of a single uranium 235 atom. Sufficient to make the point. My thanks to Parle for pointing out the mistake which has so far escaped a couple of thousand readers including many scientists. I will rectify the matter.

However, in the rest of his letter Parle expands his comments into other areas. In this he falls prey to the trap of those who rush into print without looking at the original sources. He is pontificating on a Skeptics' quote extracted from a newspaper quote. The remaining part of his letter seems mainly concerned with airing his own views and bears little relevance to the other 50 pages of "The Bumbling, Stumbling, Crumbling Theory of Creation Science".

If Parle thinks, as he seems to imply, that creationism is simply bad science, then he is as ignorant of the whole issue as those who think it is simply a travesty of religion. What is at stake are the minds of the young adults and schoolchildren of Australia. It should be at least food for thought that creation scientists welcome with open arms public debate with scientists. Duane Gish, the el Supremo debater of creation science notched up 100 victories in a row at one stage against scientists. One of his few defeats was by Ian Plimer in Sydney last March. Plimer did not fall into Gish's trap of confining the debate to the area of science. Of more concern to myself is the letter by Mike Alder, also in the Autumn 1988 issue of *the Skeptic*. In this he states that some Skeptics are apparently gearing up for an attack upon religion. Whether or not this becomes Skeptic policy is no concern of mine and I have no feeling much one way or the other.

However, Martin Bridgstock's report published in *Creation/Evolution Newsletter* seems relevant to the Skeptics' continued efforts in the field of combating creationism, with which I am very much concerned. Following is the report in its entirety:

Creationism in Britain

by Martin Bridgstock, Manchester UK (normally in Brisbane, Queensland, Australia)

Part of my study leave here has been devoted to looking at the British creation science movements. They are a sad lot. Two organisations exist (the Creation Science Movement and the Biblical Creation Society), each with a few hundred members and virtually no influence.

There seems to be two reasons for the

creationists' lack of clout here. One is that there is no mass fundamentalist movement; creation science is like a watch without a mainspring. In addition, British government is strongly centralised, giving grass-roots activists little chance to affect either education or science.

A small anti-creation society exists, the Association for the Preservation of Evolution (APE). It has harassed one creation society into extinction. However, the APE people seemed to be as concerned with the tedious atheist/religious dispute as with combating the pseudo-scientists.

The mind boggles at the thought of the closed-mind bigotry of creationists being attacked by the same closed-mind bigotry wired in reverse polarities of some Skeptics. Creationists would jump for joy.

Barry Price



Telepathy

Dear Sir,

During the latter part of their confinement as POWs in Changi, Sydney Piddington and Russell Braddon contrived and presented a telepathy ('thought-reading') act which featured at a number of concerts in Changi (in the style of *The Road to Endor*). After the war, Piddington trained his wife to work with him and they became quite famous here and in Britain where the BBC featured them in some very elaborate presentations. (One partner would be confined in the Tower of London or on a tugboat at sea!)

After this, Russell Braddon wrote a book, *The Piddingtons*, which described them and their act. However he stopped short of revealing how it was done. It occurs to me that Braddon might be persuaded to write something for *the Skeptic* and perhaps 'spill the beans' on how it was done. He might not do so if Piddington is still alive but you might think it worth trying him out.

Dr P. T. Millard

Peter Rodgers, member of the Australian Skeptics national committee as well as member of the Magic Circle club, the international association of magicians, replies: *Russell Braddon's book does not say it but*

the Piddingtons' telepathy act actually had its beginning in 1935 when as a teenager Sydney Piddington joined the IMPs (Independent Magical Performers of Sydney), the major Sydney magicians club of the day. He had the honour of performing on various shows for that club despite being its youngest member and afflicted with quite a severe stutter.

Early in his career, he performed standard magic (eg on A Night of Magic at St James Hall, Sydney, on August 1, 1936, he performed Cards to pocket, Silk Jap box, Candle tube and Diminishing cards - all classic magicians' effects) but it was during this period that he was introduced to the writings of Ted Annemann, an American magician and inventor of mental and psychic conjurors' effects. I am not suggesting that the Piddingtons' act was taken directly from Annemann's works. However, the effects were most certainly based on well known magicians' principles, many of them attributable to Annemann. That being so, it is unlikely Russell Braddon ever knew the complete methods used, despite assisting with the act in Changi and writing many of the radio scripts. Magicians always get a better reaction by concealing their methods even from their assistants.

Yes, Syd Piddington is still alive and running a guest house in the Blue Mountains with his second wife, Robyn, and an infant son. Syd's first wife, Leslie Piddington (nee Pope), was seen frequently on New South Wales television in the 70s and early 80s as Emily of the NSW Building Society advertisements.

The Piddingtons made a brief comeback to radio and the stage of the St George Leagues Club in Sydney in the mid 70s. However, the act had not kept pace with the changing times. Robyn, the new female half of the act, did not have the charisma of Leslie, and the act lacked all its original sparkle. Unlike Uri Geller, Doris Stokes or Stanton Carlisle, the Piddingtons were not out to con people. They were unashamedly entertainers and never claimed to have any special powers and always concluded their performance with the statement "You are the judges." The methods they used were not theirs or ours to expose, and in fact you would be very disappointed if all the illusions they created were broken. The effect is always much more exciting than the method, and although you may think you want to know you will be let down if you ever find out.



Provo Skeptics

Dear Sir,

Have you ever wondered how you can oppose astrology? Have you walked into a newsagent and been amazed how the proprietor can place astrology with science magazines? If your local newsagent does place pseudo-science among science, then you can use this to your advantage in fighting astrology. My technique is simple. I pick up a magazine (usually a D.I.Y., antique or craft), peruse through it and place it back on the stand but *in front* of the astrology magazines. After 2-3 magazines I have covered up the astrology magazines leaving the stand apparently empty of horoscopes but full of science and technology.

Another technique is to pick up an astrology magazine, pretend to buy it but place it back on the stand but among the comics. This works only when there are a few magazines left but it passes an appropriate value on such products.

As there is little chance of getting caught I encourage all Skeptics to at least try these tactics and do something active to oppose astrology.

Stephen Huysing

Vol 8 No 3 - 1988

Creationism

Dear Sir,

I was somewhat non-plussed at reading Barry Price's letter in *the Skeptic* (Vol 8, No 2) as he seems to have interpreted my criticism of the quote from "The Stumbling Bumbling, Crumbling Theory of Creation Science" as an attack on the document itself. If so, I apologise: such was not my intention. I only desired, in the spirit of scientific criticism, to point out a physical fallacy in the fragment of this document placed before the wider public in the pages of *The Sydney Morning Herald* and *the Skeptic*, and also to supply some further physical arguments against Setterfield which illustrate the seamless nature of modern science. As Barry surmises, I have not read the whole document, although I would be happy to do so if supplied with a copy.

For the rest of Barry's comments, we disagree only in tactics, not in aims. I do not think that creationism is "Bad Science": I prefer to think of it as "Non Science", usually contracted in speech to "nonsense". However, the existence of creationists does make it necessary to be extra careful in our own activities, and while I would not call the quote from Barry's paper "bad science", it was certainly open to creationist attack.

The rest of my letter was in the nature of pontificating on my own views: well, isn't that the purpose of a letters page? It wasn't relevant to the rest of his paper because I did not intend it to be. I am quite conversant with modern creationism, having read everything I could find on it from the reports in the journal of the American Association for the Advancement of Science on the Arkansas trial to one of those little comic books by Jack what's-his-name one sometimes finds in public toilets, which is a handy place to be if you find one. The subject has the same fascination for me as that which leads film-makers to make all those documentaries about Nazi Germany, and for the same reason: it is quintessentially evil. I think Barry would agree with me.

Andrew Parle



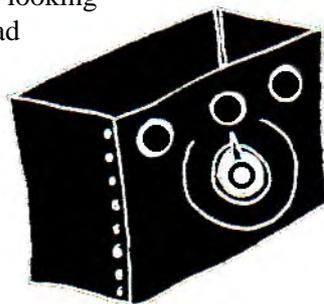
Black Boxes

Dear Sir,

I was interested by Dr Coogan's contribution "The de la Warrs - c'est la Guerre!" (Vol 8, No 1) and I am reminded of an encounter many years ago with a practitioner employing the same (or similar) "black box" as that described by Dr Coogan following his readings of *The Times* law reports.

My father and I visited an acquaintance in County Tipperary (Ireland) in the early 60s, who demonstrated his curative "black box". As far as I can recall, it was not large, perhaps a foot high, and included an impressive-looking dial and knob. It also had a level portion incorporating a recessed metal container.

He claimed that by placing an absorbent (filter) paper stained



with a drop of the patient's blood into the container, he could diagnose and cure his/her condition and that *he could do this at a distance*. I do not recall that he made any claim in regard to a lock of hair, but my memory is hazy.

He further claimed that he could cure animals, and spoke of a sick racehorse which he had "cured" and which had thereby recovered sufficiently to win a recent race at the Curragh! He had never actually met the horse, stabled some tens of miles away, having received only a sample of the animal's blood.

Would this be the same "black box" that of which Dr Coogan writes, and were there many of them around at the time?

My father's acquaintance, I might add, was a retired British Army officer, not a gullible little old lady, and one would think that he ought to have known better!

Michael Gamble



Daniel Defoe

Dear Sir,

The Winter 88 issue of *the Skeptic* is an excellent issue, but I cannot let Don Laycock's appraisal of "The Journal of the Plague Year" pass without comment.

An uninformed reader would gain the impression from Don's review that the book is eye-witness reportage (an error made by many people over the years), whereas it is a sympathetic but imaginative account of the years 1665-66. But Defoe was born in 1660, and would have only been four years old at the beginning of the book, and six during the Great Fire. I have read this fine book, and yield to no-one in admiring its accurate reconstruction of the period. Defoe records purported actual conversations, and says "I saw both these Stars" - the first of which allegedly appeared when he was four years old. But there is no historical evidence that, even at that age, he was then in London.

Actually, Defoe was a meticulous researcher, and gathered information from older men, from newspapers, Parish and City records, church registers of deaths, etc. He therefore is able to record page after page of weekly numbers of deaths in various streets and parishes.

A marvellous book, but written when Defoe was 62, it was rather deceitful of him to call it "A Journal".

Ben Bensley



Secrets of the Universe

Dear Sir,

Just in case you haven't seen this one before ...

ECKANKAR - THE SECRET SCIENCE OF SOUL TRAVEL
IMAGINE YOU... SOUL TRAVELLING YOU MAY HAVE THIS PRICELESS GIFT BUT NEVER DISCOVER IT.
THE physical body is locked into the physical bonds of the everyday world, subject to the stresses of gravity, and victim to all of the weaknesses that have beset mankind for thousands of years.
YET man is more than just a physical body, he is also spiritual essence, and this essence - the mind or the soul - is free to travel apart from the body. While so free, the problems that torment the earth-bound are nothing beside the mysteries of the universe. THE ANCIENT SCIENCE OF ECKANKAR SHOWS YOU HOW TO FREE THE SOUL FROM THE BODY, in an easy-to-understand, step-by-step method to show you the way to the universe!
DISCUSSIONS EVERY THURSDAY 7.30pm SATURDAY 9.00am to 1.00pm
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I mean, this is really and truly amazing and might just be *the* most amazing thing that I was ever amazed at, and as I regularly make a habit of being amazed (after all, I am presently living in Queensland!) the fact that this is the *most* amazing thing is in itself doubly amazing.

I shall be writing to the US National Aeronautics and Space Administration and telling them to stop messing about with O-rings and booster rockets and get into this soul travelling thing. I wonder though if you can take your camera with you and if you can bring back rocks and things - this could be a difficulty. Any way, it is obvious that plans for a Cape York Space Port should be scrapped immediately.

There are a few things that puzzle me about the enclosed newsprinted revelations though. The bit about the "stresses of gravity" worries me, a bit. I actually find it quite convenient not to find myself floating about the bedroom when I wake up and the early morning pee could be rather hazardous without a little bit of gravity helping things along. But I'm probably not understanding the whole universal picture of gravity. Also I can't help wondering that if soul travelling is a secret science, why is it being advertised in a newspaper? Although I don't understand the significance of secrecy, it would definitely be a Science wouldn't it?! I mean, forget astronomy and cosmology - they are just "locked into the physical bonds of the everyday world".

The last sentence in paragraph two about the

“method to show you the way to the universe” must be a misprint because I just looked out the window and yes, I am definitely already in the universe.
Yours soullessly

Ross Bridges

PS. I have been known to do the odd bushwalking trip. I suppose this could be considered a sort of “sole travelling”.



Gish/Plimer Debate

Dear Sir,

Speaking as a one-time religious believer I suggest that skeptics need to give more consideration to the way that our case is presented in public. I refer to the antics of Professor Plimer, and the reaction by Peter Burt (*the Skeptic* Vol 8 No 2), which is not unique. I am not going to be driven into the arms of the creationists by the bad manners of skeptics, but I can understand the feelings of people who are.

This understanding comes from the many debates between believers and non-believers that I have attended. These debates achieve very little apart from making each side more convinced than ever of their moral and intellectual superiority over the others.

Some other way is required to win over people who are confused or misled by creationists and others who sometimes manage to appeal to the authority of science itself (especially relativity and the uncertainty principle) to dignify their claims.

James White



Dear Sir,

The financial statement 1/4/87 to 31/3/88 is noted (Income Gish/Plimer \$3818.11, liabilities Gish/Plimer debate \$2309.05).

As it cost Plimer some \$300 to hire a camera and copy tapes, then Mr. Burt (letters p.43-44, *the Skeptic* Vol 8 No 2) can have a copy after depositing an ounce of gold in one of my foreign bank accounts. Schools, Skeptics and scientists receive gratis copies.

Ian Plimer



Dear Sir,

I have read with great interest your article on the Gish/Plimer debate in the last issue. While I cannot comment on the accuracy of the report of the debate I can at least comment on the claim that Ian Plimer is a “mild-mannered Christian”. On the basis of my 40-year sibling association with him, I can categorically state that the adjective used borders on being economical with the truth and the noun is as believable as Dr Gish’s ridiculous claims.

Don Plimer



Skeptics Up-front

Dear Sir,

Can I compliment you on your wonderful Skeptic’s T-shirt? It’s a really spunky design. Indeed it reminds me of nothing more than a deformed spermatozoon! Well done!

Dr W.B. Ira-Millsray



Acupuncture

Dear Sir,

It is disappointing to find that two Australian Skeptics writers both perpetuate the belief in the value of acupuncture in the relief of pain.¹

In an excellent review article on the use of acupuncture and the treatment of pain, it was concluded that “there is good evidence from controlled studies for the short-term effectiveness of acupuncture in relieving clinical pain ... [but] evidence for the longer-term effectiveness of acupuncture is weaker ... The commonly occurring immediate success rate of 50-80% is greater than might be expected if the effects of the acupuncture were mediated entirely by placebo-related factors...”².

The stated justification for this figure of 50-80% effectiveness being greater than placebo is a very early paper (1955) by Beecher³ who found 30-35% of pain patients obtained relief by oral placebos or placebo injections. A later study (1969)⁴ found 24-76% of

patients responded to oral placebos. What is remarkable about a 50-80% relief rate from acupuncture when it is about the same as a placebo response?

Further, Skrabanek, quoting a *Lancet* article⁵, claims that “placebo response can range from 0% to 100% depending on circumstances”⁶.

Dr Mendelson sums up the situation concerning acupuncture analgesia and placebo very neatly when he says “While it is accepted that acupuncture, together with other forms of afferent stimulation, has an analgesic effect mediated by a neurophysiological mechanism, the majority of placebo-controlled studies of acupuncture have shown that placebo-sham acupuncture - is just as effective in the relief of pain”⁷.

There seems to be nothing particularly outstanding about the short-term relief of pain sometimes obtained with acupuncture treatment. The literature suggests that you can get the same effect by a number of other placebo procedures. Let us not ascribe any greater value to acupuncture than what it really is - a means of bringing about a placebo response.

Graeme M. Watt

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Astrology

Dear Sir

I found your magazine in the library and was amused to read a letter from a man (Peter Hsuing or something) who actually went to the bizarre lengths of hiding astrology mags beneath ‘worthier’ publications. Of course! I am planning similar such

raids on my local newsagents to hide *Playboy* beneath *Organic Gardening* and *Post* beneath *Brides Weekly*. We all have our preferences.

Does he feel we need protecting? Is he a sort of father figure of superior knowledge to protect the masses from themselves? Hasn’t he got anything better to do? Haven’t you got anything better to print in your magazine? Has it occurred to you lot that the fact that astrology and whatever is rejected by the majority of graduates is due to their habit of using the logical side of the brain at the expense of the intuitive side, on the whole?

I have been studying Astrology at a relaxed pace on and off since 1975 and have no doubt of its validity through empirical evidence and plenty of ideas about the reasons that it works. For insight into how individuals are connected to the planets try Tom Lethbridge’s “The Power of the Pendulum” (Routledge & Kegan Paul), probably one of the most endearingly written books on any subject, written by an archaeologist. You could read this in the time it takes to rearrange four local newsagents. One of the first astrology books I read was by Nancy Reagan’s astrologer Joan Quigley she is fortunately very accurate!

I cannot recommend any particular book that can prove astrology’s validity to you (except later Gauquelin) - it is much better to study the daily positions of the planets and see for yourself how you, your friends and the world is reacting to different placements. For instance, I have found that when the Moon’s in Pisces, I want to sleep and this seems common. When the Moon passes over my Ascendant I am inclined to cry easily, etc etc. (These both happen every 28 days or so.)

Such observations can and do build into a mental library of knowledge based on empirical evidence that make your skepticism seem like very silly ramblings by persons too lazy or intellectually arrogant to enquire honestly into astrology.

You remind me of people calling an elephant a dog and then complaining that you can’t get it into the dog kennel.

Whilst not pretending to be a professional astrologer, I say if anyone wants to throw me a challenge ie astrology (that won’t cost me much time or \$) I am fighting (but busy).

Yours confrontationally

A. Lyndon

PS. The same argument goes for your infantile reactions to acupuncture. If only you guys would *listen* to your bodies and feel the world instead of THINKING about them.

Vol 8 No 4 - 1988

Reasons to Believe

Dear Sir

I have been receiving *the Skeptic* for a while, and read it with interest, though I am not always in agreement with all the articles I read.

Before you think that I am going to spring to the defence of astrology, numerology, and all the other “ologies”, let me assure you that I am not. What worries me however is this: science has “proved” over and over that these beliefs and pseudosciences are nonsense. Their languages are pure gobbledegook, their “successes” are statistically meaningless. Yet *the Skeptic* continues to spend (waste?) page after page debunking the debunked. Well, so it gives us a warm glow to read what we know anyway; to preach to ourselves, the converted?

Do we have to?

We know that it’s all bunkum and yet, the hocus-pocus industry is thriving. There is more money in horoscopy than in microscopy; more money in crystal-gazing than in crystallography; and charlatans still grow rich on biorhythm computers. Why? Would our efforts not be better applied to finding out what it is that drives many otherwise rational people (including reputable scientists) to the diviners of the past, present and future?

What’s more, are you sure we are doing people, who desperately want to believe in the stars or the power of pyramids, a favour by ridiculing their belief system and “proving” to them (can we?) that it is hollow?

Recently, two earnest people, one young, the other one much older, knocked on my door to sell me a dose of Jehovah’s witnessing. I listened (fascinated) to them going through their spiel. When they had finished I asked them: “Tell me, are you happy in your faith?” Of course we are, they chanted. “Well,” I said, “You see, I don’t believe in a god, and I am very happy, too. I don’t doubt *your sincerity*, though I may not understand your faith and know you to be wrong. So please allow me the privilege to be happy my way, even though you know me to be wrong.”

We parted, with them shaking their heads (in total confusion, no doubt). People seem to have an intrinsic need to look beyond the knowable, particularly to fathom the future (even though one of the most

horrifying stories I ever read was about a man who would see a black cross on the forehead of a person who would die within a day. As he saw healthy people in the street with black crosses he did not know what to do until he saw a black cross on his own forehead when passing a mirror).

Should we not investigate this need? If irrationality satisfies this need, should we skeptics not seek some rational explanation for this need for irrationality, and perhaps look for rational means of satisfying it instead. It seems that the laws of probability, no matter how well packaged, will not satisfy the frantic quest for the answer to “Why am I here?”. My father was satisfied with the answer: “Because God willed it”. I consider it a meaningless question. “Miracle cures” are a fact if you believe in miracles. If you believe in “mind over matter” self-healing, or in “spontaneous remissions”, you have three equally good (and equally unprovable) answers.

So please, let’s stop “proving” that tarot readings are garbage; but by all means let’s look on the destructive effects these readings can have on people (note the consequences of a Scientology’ assessment’ on the mind of the Queen Street gunman, as mentioned in the coronial inquiry), and above all what it is that makes people go for these practices and what emotionally satisfying alternatives we skeptics can offer them.

Heinz Harant

Editor’s comment: *We would welcome articles on the theme Mr. Harant suggests, but we should point out at the same time that there are still many people who are not as aware as Mr. Harant that pseudoscience is, indeed, “nonsense”.*



Acupuncture

Dear Sir

I was disappointed with Nik Bogduk’s fascile review of acupuncture (*the Skeptic*, Vol 8, No 2), because he merely said what acupuncture is not. In pain control he stated acupuncture is equal to 10mg morphine but not 100mg. He goes over old ground about Yin and Yang being mystical; I mean, as if therapy consumers were so artless to believe those ideas and other

philosophical speculations as absolute. Consumers are profoundly aware of vitalism and subjective idealism in health care practices.

His opening remark was that needling works via the nerves. What a revelation! He says there are no trials of value and quotes some silly statement about non-regenerative conditions (paralysis) being treated with acupuncture, but has nothing helpful or worthwhile to say from his view of this, except from his knowledge of neurology and anaesthesia. He reminds us major operations can be done as well with acupuncture as with minimal drugs (his misnomer anaesthesia should have read analgesia). Again as if we didn't know.

Then he blames certain GPs for their brief and distanced consultation which repulse patients out into the psycho-tactile care charlatans. I didn't find that enlightening either. I am disturbed to see Dr Bogduk is appointed by the NHMRC to review acupuncture when he presents so little in-depth knowledge.

I learned nothing from his article.

Owen Shaw



Elephants Unknown to Science

Dear Sir

Our glorious President, Barry Williams, always seems to be running up against one obstacle in his investigations into things paranormal, the famous "Energies Unknown to Science" (EUTS).

I feel that Barry's mind could be put to rest by studying this irrefutable piece of logic from the well-known British researchers, Minnie Bannister and Henry Crun.

Crun: Get on baiting those elephant traps.
Min: I don't see the point of them you know. We've never caught one.
Crun: That doesn't mean we must stop trying, Min of mine. Think of the dangers. Supposing you came down one morning for a greens-strainer and found an elephant in the larder, eh?
Min: Well, I've never seen an elephant in the larder.
Crun: That is because they're hiding, Min of mine.
Min: Where do elephants hide? Tell me that - where do elephants hide, buddy?
Crun: Well, I don't know, saxophone Min, but it's clear to me that they must hide somewhere. How else could they get away with it for so long?

(Goon Show "Queen Anne's Rain", Spike Milligan)

Kent Blackmore



Gish/Plimer Debate

Dear Sir

Along with many Skeptics and not a few true believers, I attended the debate between arch-creationist Duane Gish and our own Ian (Scourge of the Infidel) Plimer at the University of New South Wales in March.

In many ways it was a disappointing contest, as scientific issues were not addressed and there was little time for questions. Trying to think like a dispassionate observer, I would have to say that Gish won the debate, with his manner rather like a benign Colonel Sanders rather than the combative Plimer.

Gish, of course, also had the advantage in that he felt no need to restrict himself to the truth, and was able to redefine the terms of the debate: he felt he had a victory by defining both creationism and evolutionism as "pseudo-sciences". The opening shot of the case for Gish's Kentucky Fried Science was the faulty syllogism: Religion is a view of the Universe; Evolution is a view of the Universe; therefore Evolution is a Religion. From that point we had a rehash of the standard creationist spiel - misquotes, thermodynamics, improbability, and transitional fossils. I have tried to arrange the initials to produce a suitable acronym, like BULL, but with no success.

Without having the literature at your fingertips, it is difficult to counter the misquotes and distortions of the sayings of evolutionists or any scientist who is open to it. At least, I do not recall Gish quoting Einstein's famous utterance "God does not play dice with the universe" to prove that the great physicist was anti-evolution, or even a Christian: of course, Einstein was Jewish by descent, an agnostic humanist by conviction, was talking about quantum mechanics and not evolution, and was wrong anyway.

The thermodynamic argument was nonsense, even with Gish paying lipservice to the notion of closed systems. Unfortunately, very few people in the audience would be in a position to refute this, I being one of them because I have taught this subject to university students. Again we have the problem that one does not have to know a subject to lie about it, but one does have to know it to detect the lies.

The improbability argument was probably the strongest creationist point, even though it actually boiled down to the admission: "We can't see how this happened, and so it didn't happen, no matter what evidence there is to the contrary". Once more, hard science and facts are placed at the same level as myth,

superstition, hearsay and ill-informed opinion. At least some people use the problem of improbability to affirm the existence of God as the guiding hand behind evolution, but Gish and much of his audience were as opposed to theistic evolution as any other variety. I talked to some of these people afterwards; not only was there agreement that God wouldn't waste his time with evolution, but also that a rival charismatic sect, the Pentecostals, were dangerous left-wingers or even possessed by the Evil One (I'm not kidding).

The discussion of transitional fossils was to me the most interesting because I could never understand how there could be such disagreement on such a basic point. After all, a fossil has a physical existence, and is not merely theoretical like the subjects of the two previous arguments.

The argument is straightforward:

Premise 1: Transitional fossils do not exist.

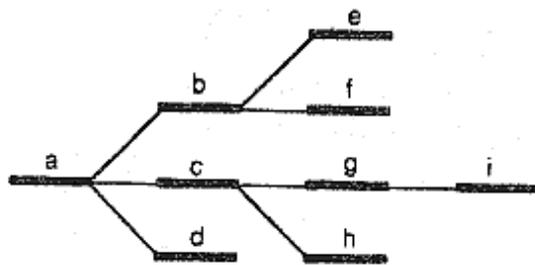
Premise 2: Evolution predicts that they should.

Conclusion: Evolution didn't happen.

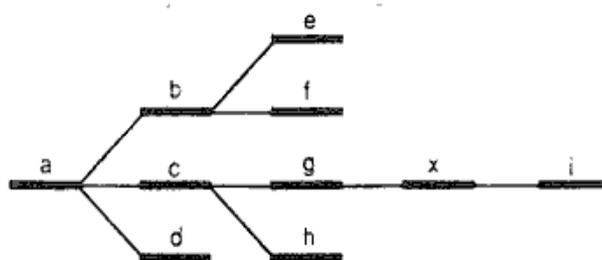
This is almost valid - if the premises are correct, then the conclusion looks pretty strong. It is not watertight because in principle someone could have gone around destroying all transition fossils, but no evolutionist would put this up as a defence. The debate seems to rage over the first premise, that transitional fossils do not exist, but I would contend that the real problem lies with premise 2, because of the ways that creationists define transitional fossils.

Transitional fossils and animals are defined by creationists in two main ways. The first one might be illustrated by the following diagram:

The animals have been chosen from a creationist comic book on the subject; the point they wish to make being that we don't find animals such as the elaffe or the girephant, which are transitional between the elephant and the giraffe. One cannot disagree with that (premise 1), but when they claim that such animals are predicted by evolution (premise 2), they are wrong. In fact, from evolutionary theory, it is unlikely that a single species should diverge into more than two species at exactly the same time. I do not recall Gish using this definition; perhaps he was embarrassed by it, but I doubt it. The second creationist definition of a transitional form (which applies only to fossils) is the one used by Gish in the debate. He produced a (perfectly valid) cladistic diagram showing the supposed relationships between various fossils in the lineage of the modern elephant. The diagram looked like this:



I have not attempted to reproduce the names of the fossil species, but have simply labelled them. The thick lines represent fossil species which are known, and the thin lines represent inferred evolutionary relationships between them. These inferences are made from morphological similarities, geographical congruence and relative stratigraphical ordering. Gish draws attention to the thin lines connecting known species in the fossil record (he calls them "gaps"). According to his interpretation of the record, this is where the "transitional fossils" should be found, and there are none. This is because he has defined transitional fossils in a way in which it is *logically impossible* that they can ever be found. For example, suppose that a new fossil is discovered and placed in the cladistic diagram between fossil species G and I:



Now, is X a transitional fossil from Gish's point of view? Of course not. We have just turned one gap into two! From his point of view, there is no way in which "transitional fossils" can be found unless we eliminate *all gaps* and replace the diagram with a continuous branching tree: this would require an infinite number of fossils. The current versions of evolutionary theory *do not* predict that such trees can be derived from the fossil record (in fact, they cannot), as the differences between fossil species are small but finite. If, instead of looking at the gaps, we look at the fossils themselves, then we immediately see a plethora of transitional fossils. In the last diagram, for example, B is transitional between A and E and between A and F, C is transitional between A and G and between A and

H, G is a transitional fossil between C and X, and X is transitional between G and I.

Thus the complaint about the lack of transitional fossils disproving evolution is as baseless as the rest of the creationist fantasies. If they use their definition of transitional fossils, they certainly don't exist, but then evolution does not predict that they should; if they use the evolutionist definition, then they do exist. This confusion over the definition has served the creationists well, both in debate and in their distortions and misquotes of paleontologists.

As an example of this, Gish quoted Stephen Jay Gould (!) as saying that transitional fossils don't exist. Of course, the context is in explaining the need for his mechanism of punctuated equilibrium so that fossil species are discontinuous rather than showing smooth transitions (here, of course, Gould was using the term in the creationist sense of smooth transitions). By the time Gish was finished with him, Gould appeared to be against evolution.

Question time was regrettably short, and I did not have the opportunity to plant a few barbs concerning thermodynamics and transitional fossils. I also wanted to ask Gish if he stood by the contents of a book which he had written and which was on sale in the lobby about dinosaurs, in which he claimed that human footprints had been found alongside dinosaur ones by the Paluxy River. His avoidance of similar questions did not impress me, and I wondered how anyone could be fooled by so obvious a charlatan. His entire armoury could be easily summed up:

If he states a fact, it's wrong.

If he makes an argument, it's fallacious.

If he has an opinion, it's ill-informed.

In conclusion, the debate will not have won anyone to our side and probably strengthened the faith of the True Believers. If there were any fence-sitters in the audience, they would not have heard any defence of evolution but only an attack on creationism, and may be led to doubt the former even if they don't accept the latter.

I know that some Skeptics may disagree with me, but I feel that this approach is counter-productive, and that in future we should concentrate on science - the strong point of evolution - and leave the *ad hominem* attacks to the creationists, however richly they deserve them.

The subject is too important to be left to the politics of the warm inner glow.

Andrew Parle



Skeptics & Religion IV

Dear Sir

The other night I went to bed with *the Skeptic* (Vol 8, No 1) and read Mike Alders letter on "Skeptics and Religion". I thought, 'What a great letter - nice ideas'. Then I fell asleep. Over the morning cuppa I tried to get my own thoughts together on the subject. A few things occurred to me that I could write about - so here goes.

It seems to me that when we talk about science and religion, we are really talking about facets of humanity. People seem to forget this and often weigh one against the other as if they were something tangible. There is no "Science" (with a capital S) out there in space that we are groping for. There is no "Religion" (with a capital R) out there either (unless you are a believer). They both spring from the human mind - our ideas and perceptions of our reality. Without humans there is no science, no religion.

So if you are going to talk about what is really important - values, ideals and the like (whose values and ideals, by the way? - mine might be different to yours), I can't see that a religious point of view has a monopoly on them any more than a scientific point of view.

You see, when you get down to it, it is actually people who hold points of view. I, for example, am not especially scientific and not very religious (I used to be religious, but I saw the light and became a born again heathen). I'm just your average, complicated mosaic of ideas and motivations. And I happen to care very much about what I think is important (Alder's "religion") as well as caring what the world is actually like (Alder's "science"). Scientists like David Suzuki and Carl Sagan have a lot to say about many things that are critically important for the future wellbeing of humanity. Peter Mason preached that we could do much to improve the human condition with good science, wisely used.

Also I fail to see why we should admire religious organisations for their "respect for truth" when so much of religious belief is probably not true. And what is so good about "superstitious awe"? Many of us are awed quite nicely, thank you very much, by the wonders of the natural world or by contemplation of the cosmos.

We should be careful not to get into the trap of worrying about a false dichotomy between "religion and science". As I said, both have sprung from the minds of humans along with all the other zillions of ideas that ever were.

Neither religion nor science have their "proper domain" as Mike suggests. Reality has a habit of being

awfully complicated. You can't achieve much by filing some aspects of humanity under "S" for science while keeping others in the "R" for religion drawer. There is a whole alphabet to the store of human knowledge and striving.

As an example, consider the currently widely publicised ideas of Paul Davies of the "Cosmic Blueprint" - the idea that the universe unfolds as if there is a grand plan and that there are self-organising principles at work in the universe that have led to greater order and complexity, and to us. Label these ideas however you like science, religion - it doesn't matter much, it doesn't change the idea. So there you are. I don't know that anything I've said has much to do with Skeptics and religion. Just thought I'd put in my two bob's worth, that's all.

Ross Bridges



Saulwick Poll

Dear Sir

Dear me, non-believers who believe! (Saulwick poll on belief in the paranormal, *the Skeptic* Vol 8 No 3, p5) Let us put it in another way. People who took a survey and did not do their homework.

When the group mentioned in the survey stated that they had no religion, they really meant "I don't participate or belong to a specific or certain church or group". That way of putting it is common under borderline believers.

When you ask them questions, they sometimes say no when it should be yes, and vice versa. You have to get used to their way of expressing themselves. The answer they give depends on how and why and who the question is put.

The survey should have taken their state of mind into consideration. As it stands in the survey, it sounds funny, but it has no value and throws doubt on the total survey.

H. Kurpershoek



Science & Truth

Dear Sir

Mel Dickson's interesting article in the 1987 Spring edition of *the Skeptic* ("The Meaning of Truth") prompts me to make the following observations:

1) We'll never be able to understand the exact nature of the physical world as we are by definition part of it. The 'ultimate truth' will forever escape us. Can the eye see itself? Can the mind understand itself?

2) Neither can mathematics reveal the 'truth'. Mathematics is merely a man-made device using symbols to describe numbers and sizes of things that can be measured in order to give us an idea of their complex relationships. In mathematics $1 + 1 = 2$; but it is always a little more or a little less than two. No two seemingly identical particles of matter, for example, can be equal in all respects. They appeared at different times and under different circumstances. We cannot measure the exact weight of a bit of matter as we can never devise a scale that can do it with exact accuracy. Neither can we foresee the subtle fluctuations in gravity.

3) Is it possible to imagine what the universe would have been like after the big bang, had all the first hydrogen atoms been exactly identical? Could it have produced the various discrete aggregations of atoms that formed the first collections of dust in the universe? It is easier to assume that the first hydrogen atoms were all unequal and that this caused their mutual attraction.

4) No particular substance remains the same from moment to moment - it is forever changing. These changes may be so small as to be overlooked by us in our measurements. The ageing process, for example, is so insidious that we fail to notice it until it becomes all too obvious. A man or a building, for that matter, is not the same man or building from moment to moment. One cannot know both the velocity and position of a particle at the same time.

Our measurements can therefore never be more than approximate. The universe is changing all the time and so is the measurer. It is also unchangeable. There is nothing we can do to change it. We cannot add or take away a single atom. And no element is 100% pure.

5) Time is merely an imaginary concept. It does not exist in the universe. There is no such thing as a point in time, otherwise the world would have to stand still at a particular point in order to move on to the next. No two events can happen simultaneously. There is

therefore no present; and as the past becomes apparent to us only in the future, there can only be a future. Time measurements, like the rotation of the earth, the swing of a pendulum, the period of radiation of some atoms, the half-life of radioactive decay, are never absolutely true as they are merely the average results of billions of interactions.

6) The idea that an event must have a beginning and an end is entirely a human notion. It's like pondering where a circle starts or stops. We cannot start or stop anything.

7) Space defines the interval between atoms or collections of atoms as the universe expands, otherwise it has no existence. A Torricellian vacuum, for example, can be created out of nothing.

8) At one stage people thought that the world was flat because they couldn't see beyond the horizon. Similarly, a surface may look smooth because one cannot see or feel the irregularities on it. When we make a flat surface using a spirit level, and extend it far enough, it will stretch around the world. A perfectly flat surface would extend into space. A geometric circle will not only have a slight bend in it but will also be a bit foreshortened by the speed of the earth through space.

Things in the universe and consequently on earth are never what they seem to be. Our sense of reality is entirely anthropic. There is no such thing as scientific truth. Truth as we know it is merely the antithesis of a lie or a falsehood. Scientific observations are never factual. They can either be disproved or modified by more sophisticated investigations and measurements. Philosophy is no help either as it must of necessity follow scientific discoveries. No person is born with original ideas -they stem from nurture. No Einstein could have conceived the Theory of Relativity in isolation. Our perceptions are so clouded by our cultural inheritance and sentiments that we'll have to develop an entirely new scientific language devoid of all ambiguities. John Haldane said "The Universe is not only queerer than we suppose but queerer than we can suppose." It is therefore essential that we exercise logical thought and a healthy sense of skepticism in all our scientific endeavours and resign ourselves to the fact that the truth will forever evade us.

Science is man, and man is science.

Dr J. Henson

Overworked astrologer

Dear Sir

I found this advertisement in the Daily Mirror (Sydney) of November 21, 1988.

CALL THE AMAZING SPACE-AGE HOROSCOPE AND WIN A TRIP TO THE STARS!

NEW, BRILLIANT STARCALL INPHO IS OUT OF THIS WORLD

ATHENA STARPHONIA STARCALL INPHO: THE MOST UP TO DATE HOROSCOPE FEATURING THE WORLD-FAMOUS ASTROLOGER ATHENA STARPHONIA.

IS TECH STARCALL INPHO: PLAN PROGRAMMED! ATHENA STARPHONIA'S PREDICTIONS INTO A HIGH TECH TALKING COMPUTER. CALL ANYTIME TO HEAR YOUR DAILY HOROSCOPE FROM THIS AMAZING SERVICE.

SPECIALLY FOR YOU STARCALL INPHO IS PERSONALISED SPECIALLY TO YOUR BIRTHDAY. NOT JUST YOUR BIRTHDAY TO YOUR BIRTHDAY.

YOUR BIRTHDAY STARCALL INPHO BRINGS YOU IMMEDIATE ACTION GUIDED, UPDATED, EVERY MORNING, AFTERNOON AND EVENING.

MOON REPORTS STARCALL INPHO INCLUDES TITRATION OF THE MOON REPORTS AND HOW THEY AFFECT YOU.

TIED TO THE STARS STARCALL INPHO GIVES YOU THE CHANCE EVERYTIME YOU CALL TO WIN A WONDERFUL TRIP TO HOLLYWOOD TO SEE THE STARS, OR ONE OF HUNDREDS OF OTHER PRIZES.

HOW TO DIAL STARCALL INPHO
IT'S EASY. JUST DIAL 00555 FOLLOWED BY THE DAY AND MONTH OF YOUR BIRTHDAY. EXAMPLES: BIRTHDAY ON 8TH FEBRUARY DIAL 00555 0802 BIRTHDAY ON 23TH OCTOBER DIAL 00555 2310 CALL ANYDAY ANYTIME AND WIN!

Starcall InPho 00555

THE STARCALL INPHO SERVICE IS AVAILABLE TO ALL AREAS OF THE UNITED KINGDOM. THE SERVICE IS AVAILABLE TO ALL AREAS OF THE UNITED KINGDOM. THE SERVICE IS AVAILABLE TO ALL AREAS OF THE UNITED KINGDOM.

Just a small point, but if all the horoscopes are (i) "personalised" and (ii) predictions by Athena herself, then if they're "updated every morning, afternoon and evening", doesn't this present problems? For example, 365 separate horoscopes, updated three times a day, gives 1095 separate predictions per day!

If we assume each lasts only one minute (unlikely on inphophone) then she must spend 1095 minutes per day (= 18h 15min!!) everyday at this!! [Note the hi-tech computer only talks ... it's her predictions that are used!!!]

David Wheeler



Update

On another famous lady of the paranormal world, we have discovered what the "Z" stands for in JZ Knight - it's "zebra"! Personally we prefer "zoril".



Vol 9 No 1 - 1989

Creation Week

Dear Sir

I refer to the report in your Summer 1988 edition "News Report: Creation Week in Canberra". There were many comments made concerning my presentation in the all-day creation seminar.

I realise that it is difficult to accurately record everything during the course of a long day and concerning a complex issue. It must be difficult to concentrate for hours on end, particularly when one is philosophically opposed to the presenter's paradigm.

Please allow me to correct some inaccuracies in a non-emotive way.

1 My main point concerning the length of the day was the fact that attempts to lengthen the day (by Christian apologists) inevitably end up with death before Adam.

2 You state that I had "admitted there was no definition" of a created kind. In fact, what I said was there was no possibility of a non-tautological definition of a created kind. I, in fact, gave a definition.

3 The paragraph concerning salt water to crystals is interesting - in fact, the gentleman's remonstrations did not remain unanswered. I clarified the issue for him (others in the audience say I made it clear to them once interruptions ceased and I was permitted to get on with the lecture) after the session finished. The gentleman concerned in fact apologised to me more than once for his rude interruptions, which were based upon poor initial understanding on his part.

4 The most badly distorted piece of reporting (forgiveness is offered on the basis that it was the end of a long, tiring day) was that concerning the plants on the third day. You say that even I could not suppress a smile as I explained that "the objection that plants, allegedly created on the third day (Genesis 1:9-13) could not have survived without the sun, created on the fourth (Genesis 1:14-19), was no cause for alarm because perhaps the plants were created at the very end of the third day and the sun at the very beginning of the fourth."

A moment's reflection should cause the intelligent skeptic to realise that I would have no need for such an apologetic with a 24-hour belief, since plants can survive for 24 hours without sunlight. Had your reporter been listening, he/she would have realised that I was dismissing the "long day" apologetic, and explaining an argument which has sometimes been used to bolster

it. The smile was correctly reported.

I hope you will be gracious enough to print this in its entirety. One lady Skeptic seemed to agree with me in a private, mutually respectful discussion that the Skeptics needed to take a hard look at their ethics on occasion. I have seen the most incredible distortions in Skeptic literature - one South Australian branch reported that a creationist lecturer had said that mammoths were hurled from the earth and frozen high in the stratosphere! I had been to the lecture and of course he said no such thing.

I can only strongly agree with the lady in question that, no matter what our philosophical opinions of each other's world view, it is important to "keep it clean".

Dr Carl Wieland
Creation Science Foundation

Editor's comment: *We have published Dr Wieland's letter in full as we presume the CSF journal, "Ex Nihilo": would also be willing to publish letters from Skeptics.*



UFO research

Dear Sir

I was delighted to see Gregory Czechura's article concerning Stealth fighters, RPVs and alleged crashes of UFOs in the last issue of *the Skeptic* [Vol 8, No 4]. He is to be congratulated for conducting some research into this particular aspect of UFOs. Far too often sceptics are armchair analysts. However, it should be noted that others have been aware of the possibility of aircraft etc., being behind some "UFO" cases, for quite some time.

1) I have previously drawn attention to a number of incidents where Australian UFO reports can be explained in terms of unidentified aircraft. For example, in September 1973, two UFOs reportedly flew over Alice Springs - even the then airport manager described them as "flying objects, closely resembling aircraft" (*Northern Territory News*, 10/9/73). Secondly, many people in Warrnambool, Victoria, reported seeing a high altitude UFO in July 1980 which remained unidentified despite a RMF investigation. It had, however, all the hallmarks of an aircraft (*Warrnambool Standard*, July 1980). Thirdly, a TAA pilot enroute to Darwin in August 1980 noted what appeared to be an aircraft some 20,000 feet above his plane. Despite

intensive investigation, no known aircraft was ever found to be the cause of the sighting (Investigation by UFO Research Far North Queensland).

2) Since 1986, English author Jenny Randles has called attention to the fact that some English UFO reports seem to be due to nocturnal flights of the F 19 Stealth fighter (*Northern UFO News*, No 121, Sep/Oct 1986).

3) Even further back, in the late 1950s, a UFO investigator uncovered the existence of a secret airbase in Canada from which high altitude aircraft were over flying the USSR (“UFOs over the Americas”, J&C Lorenzen, *Signet* 1968, p.187). Notwithstanding the above comments, I would encourage more sceptics to actually look at the available data on UFOs and then voice their considered opinion.

Keith Basterfield



Credulity surveys

Dear Sir

I read with interest William Grey’s article “Australia’s Credulity Rating: Bad or Worse” in the Summer 88 volume of *the Skeptic*.

In his article, Grey comments on our poll (see Vol 8 No 3, p.5) and compares our figures with those of the National Social Science Survey conducted by the ANU. In particular, he points out that we found “... a 32% level of belief in astrology in comparison with the NSSS finding of 16%...”

I agree with his comments that “we probably need more work from our social scientists to sort this out”. I also agree that, in looking ‘at findings’, one must look at the question asked. While Grey is correct in stating “that we did not explicitly include a ‘don’t know’ category in the question asked”, we certainly did so for purposes of recording. Our question was “I’m going to read out a list of things some people believe in. In each case, would you tell me whether you believe in it or not?” Provision was made on the questionnaire to record “Yes”, “No” or “Don’t Know”. With the greatest respect, I don’t think that this is a “quick and dirty” survey approach, as Grey suggests.

Irving Saulwick



Testing beliefs

Dear Sir

Following publication of a recent survey of the degree of acceptance of pseudoscience, astrology, ESP, etc., one of my fellow teachers, Ian McGregor, gave the data to a group of his students and discussed their belief in ESP. What arose was an interesting experiment for high school age students.

One aspect of ESP that most students will claim to be true is that they will “know” if someone behind them is staring at them.

It is a good exercise for students to devise a scientifically valid experiment to test this hypothesis. This is very good to illustrate the need for a control for such experiments.

I subsequently tried this with a class of my own who also initially claimed to “know” when they were being stared at. At the end of the experiment, all agreed that in fact such “knowledge” really was explained by the use of their more normal senses rather than ESP.

But despite the results of the experiments, we both had a feeling that students really wanted to believe the original hypothesis and felt it would be interesting to follow up the groups in five to six years and ask again whether they “know” when someone is staring at them.

John Mawson



Astrology

Dear Sir

There were not enough laughs in the Spring ’88 issue of *the Skeptic*, or so I felt until I got to the last page. A. Lyndon was there to cheer me up, in the last letter from your readers, under the heading “Astrology”. A. Lyndon did a beautiful job of verbally disembowelling the reader who went around replacing the periodicals in newsagents so that the more intellectually respectable would be on top. Good for you, A. Lyndon! You write well and you had a good subject.

In the next paragraph, it became apparent that A. Lyndon reserves that left-hemisphere-critical faculty for jumping all over skeptics, not for thinking about the world at large. A. Lyndon gave some empirical data supporting astrology; A. Lyndon is more likely to cry

at certain times of the month. I have an alternative explanation which doesn't involve the phases of the moon; I conjecture that A. Lyndon is a woman. I would further guess she's on the pill.

If A. Lyndon isn't, A.

Lyndon has a periodic hormone change which could be accounted for by more prosaic means, but why bother with more complicated hypotheses given the simplest? Are you listening, A. Lyndon? You can confirm or refute my conjecture with little effort; please do.

If you are female, A. Lyndon, then you might perhaps be beginning to appreciate that there is sometimes good reason for all the sexism in the world. So long as women insist on using their brains for constructing elaborate rationalisations and try to think with their endocrine system, so long will men be reluctant to let them take charge of anything complicated. If you aren't a woman, you need your hormones seen to. You sure argue and reason, if that's the word, like the purest stereotype of the dotty, opinionated brainless bird. By all means, feel your body, but when it comes to theories and ideas, nothing beats thought. It's done with brains, left *and* right bits.

Right, that's a sample of my sunny personality. Now tell me my birthday, correct to within fifteen days.

Mike Alder

Editor's comment: *There was no indication on A. Lyndon's letter as to the gender of the writer. We look forward to a response, from whatever quarter, to Mr Alder's view.*



On the other hand, if the term “rape” is being used in a “tongue-in-cheek” manner, I suggest that Mr Edwards spends time reading Susan Brownmiller's “Men, Women and Rape” and Elizabeth Ward's “Father-Daughter Rape”.

Rape is not a term to be used to imply invited, welcome or wanted sexual activity; rape is, and I quote from the Sydney Rape Crisis Centre's “Surviving Rape Handbook”, ‘any sexual harassment or interference that is uninvited, unwelcome and unwanted’.

Andreia Cook

Harry Edwards' response: *Touché.*



Heaven is Hotter than Hell

The following material, from *Applied Optics*, 11, A14 (1972), was supplied by a reader with the view of correcting one of the myths of our time:

The temperature of Heaven can be rather accurately computed from available data. Our authority is the Bible: Isaiah 30:26 reads, “Moreover the light of the Moon shall be as the light of the Sun and the light of the Sun shall be sevenfold, as the light of seven days”. Thus Heaven receives from the Moon as much radiation as we do from the Sun and in addition seven times seven (forty-nine) times as much as the Earth does from the Sun, or fifty times in all.

The light we receive from the Moon is a ten thousandth of the light we receive from the Sun, so we can ignore that. With these data, we can compute the temperature of Heaven.

The radiation falling on Heaven will heat it to the point where the heat lost by radiation is just equal to the heat received by radiation. In other words, Heaven loses fifty times as much heat as the Earth by radiation. Using the Stefan-Boltzman fourth-power law for radiation

$$\left(\frac{H}{E}\right)^4 = 50$$

where E is the absolute temperature of the Earth - 300K. This gives H as 798K (525°C).

The exact temperature of Hell cannot be computed but it must be less than 444.6°C, the temperature at



Response on rape

Dear Sir

I refer to Harry Edwards' news report, “Travels of an Aussie Skeptic”, *the Skeptic* Summer '88, in which the opening paragraph states that the writer “was raped by Wahinis in Tahiti”. As it has only now been brought to my attention through this article that Mr Edwards was sexually assaulted by native New Zealand women, I would like to convey my deepest sympathy and empathy for him.

which brimstone or sulphur changes from a liquid to a gas. Revelations 21:8, "But the fearful, and unbelieving ... shall have their part in the lake which burneth with fire and brimstone". A lake of molten brimstone means that its temperature must be below the boiling point, which is 444.6°C. (Above this point it would be a vapour, not a lake.)

We have, then, temperature of Heaven, 525°C. Temperature of Hell, < 445T. Therefore, Heaven is hotter than Hell.

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Skeptics & Religion V

Dear Sir

God is found in the unlikeliest places - including, it would seem, the Skeptics. During the recent conference, Colin Groves, top banana of the Canberra Skeptics, said that there are many Christians in the Skeptics, and Ian Plimer said that it was fine for Skeptics to treat both the Old and New Testament as symbolic - presumably symbolic of the core 'truths' of the Christian religion such as the Holy Trinity, Heaven, angels and so on.

Plimer, whose captivating and skilful performances probably qualify him as the combined Torvill and Dean among Skeptics, was skating on pretty thin ice here. His argument seems to be that although it is not possible to believe literally, as creationists do, in Genesis and the rest of the Old Testament, we can accept this bit of the Bible as a human historical document produced to meet the then needs of those of Jewish faith, and that we can treat the New Testament in the same way, i.e., as a non-literal early Christian work. There are, however, problems with this argument for Skeptics and Christians alike.

Christians do, and must, literally believe in the divinity of Jesus, i.e., that Jesus was God all along, our eternal figure of salvation, and not (as his early Jewish followers and he himself believed) a corporeal man born of spermatozoa and egg who was given the nod by God to be the earthly Messiah/liberator of the Jews and whose execution ended his historical and all other existence and his religious role. St Paul, the founder of non-Judaic Christianity, polemicised vigorously with the orthodox Jews in the decades after Jesus' death over this definition of Jesus as God ('Pauline'

Christianity) or Jesus as of God (Judaic Christianity). As well as the virgin birth, Christians must also believe in the physical resurrection of Jesus and not the disappearance of his body, by human hands, from his tomb. These beliefs, and others to do with the super (or para) normal, are as fundamental to Christianity as is every jot and tittle of Genesis to creationists. The point for Skeptics is that if creationist beliefs about God and the natural world cannot be scientifically substantiated then neither can Christian theological beliefs.

So why do we go soft on the New but not the Old Testament? Creationism is certainly a menace to critical thinking and democratic rights but it was Christians acting on the basis of fundamental New Testament beliefs who tried to censor 'The Last Temptation of Christ' because it portrayed Jesus as a man who, ungodlike, was prey to the temptations of the flesh.

Perhaps we tolerate New Testament Christianity because creationists are relatively few and their ideas less unpopular to attack than the belief system of the 1000 million non-creationist Christians. But the scientific testing of belief, and not numbers and popularity, should be our guide as it was for Copernicus, Kepler, Galileo and Newton, whose work challenged religious orthodoxy.

While we can accept both the Old and New Testament as specific texts to meet historical needs, we have to be aware that the New Testament was written as a propaganda tract. The Gospels and Acts were ghost-written at least fifty years after the events and were selected out of hundreds of documents by an anti-Jewish and pro-Roman Church intelligentsia for political reasons because they turned the devout Jew Jesus, who was the earthly Messianic leader of the Jewish poor against Roman imperialism, into a Divine being concerned only with spiritual matters and ethical teaching and who advocated suffering, patience and pacifism to Jew and Gentile in the face of Roman power.

Skeptics can catch the minnows of iridology and astrology, and beat off the shark of Creationism, but there is a whale of a belief in Christianity (and its supernatural Being(s) beyond the ken of science) which could engulf the careless or timid Skeptic.

Phil Shannon

Editor's comment: *To quote from the president's column, Vol. 7 No. 4, 'physical manifestations can (and will) be scientifically tested; the truth of metaphysical claims cannot'. It is the Skeptics'*

policy to investigate all paranormal and pseudo-scientific claims which purport to have a scientific (ie. as opposed to belief or faith) basis. Those areas of Christian or other religions which claim such support are investigated by *Skeptics*, regardless of the popularity of those beliefs. Those areas which do not claim a scientifically investigable basis, but which rely purely on the faith of the follower, do not seem capable of being investigated on a scientific basis. This journal would, however, countenance serious suggestions along these lines.



Creation Weak

Dear Sir

Carl Weiland suggests (Autumn '89 issue) that possibly the *Skeptics* should take a close look at their ethics when dealing with creationism and states, "It is important to 'keep it clean'."

What is not stated is:

- (a) Truth is the first casualty of creationism.
- (b) Australian creationist leaders fabricate 'scientific' data (see 'An Experiment with Creationist Science', this issue).

In essence, Carl Weiland objects to the *Skeptics* blowing the whistle on the intellectual and religious pornography of the fanatical fundamentalist CSF and wants carte blanche to promulgate porn.

As Carl and his cohorts claim to be Christian, they might be held in slightly higher esteem by the community when they become born again to the doctrine of truth.

Ian Plimer



Responses to Alder letter

Dear Madam

Irrespective of A. Lyndon's views, Mike Alder's sexist response to them (Autumn issue of *the Skeptic*) offended us greatly.

If one substitutes the word 'black' where he writes 'woman', 'white' where he uses 'men', and 'Abo' for 'bird', it is clear what we mean. We quote his

offending sentences with these substitutions:

If you are black, A. Lyndon, then you might perhaps be beginning to appreciate that there is sometimes good reason for all the racism in the world.

...So long as blacks insist on using their brains for constructing elaborate rationalisations and try to think with their endocrine system, so long will whites be reluctant to let them take charge of anything complicated.

...You sure argue and reason, if that's the word, like the purest stereotype of the dotty, opinionated brainless Abo.

Sadly

Dorothy Simons & Diana Wyndham,
for Women's Electoral Lobby

PS: Mike Alder has won the 'Pig of the Month' award published in the April issue of *WEL-Informed*.



Dear Sir

I was deeply upset to read M. Alder's hurtful and unwarranted literary assault on A. Lyndon's left-hemisphere critical faculty. As a fellow searcher after the truth, I could only sympathise with A. Lyndon's attempt to enlighten the blinkered, short-sighted readers of *the Skeptic* like M. Alder to the Universal and Eternal nature of Astrological Principles. These principles, based on the lost knowledge of the Ancients, handed down from generation to generation from before the days of Atlantis, have many times been confirmed by rigorous scientific experimentation by open-minded, reputable scientists based in many parts of the world's leading institutions (e.g., Fleischmann and Pons *et al*, 1989).

It appears that M. Alder has not had complete access to the overwhelming evidence in support of astrology. I feel therefore that it is my duty to convince M. Alder of the underlying Harmonic Resonances of the universe via a simple demonstration: shortly before writing this letter I used my crystal most deeply impregnated with vibrational energy to extract from M. Alder's letter the remaining psychic residue. I was able to discover the following facts.

Dr Alder (I don't know why I said doctor, but I did so take it as doctor), I feel that you are not of this land but from a region of great depression far from these shores. The anger expressed in your letter indicates

to me as it would to anyone in touch with their own oneness that you either have red hair or drive a red Ferrari or will do so in the near future.

Yet there is a certain falseness that underlies your cynical comments. Perhaps you have a wooden leg or wear a wig, or perhaps you are possessed of a very artificial intelligence. I sense that you are either very sexist or naturally very rude or both.

The overblown verbosity of your letter is I suspect indicative of many aspects of your life. Are you overweight by any chance? You should try diet Coke!

Numerological calculations indicate that your name is connected with the number 42. Perhaps it shows hope that one day you will become at one with Life, the Universe and Everything. Indeed, I hope that I have already released your psychic awareness to the extent that you will be able to calculate your own birthday to within fifteen days.

In summary, your letter concerning A. Lyndon was a load of old cobblers from line one.

O. Trafford

P. S. I sense that M. Alder is a man.



... and A. Lyndon responds

Dear Sir

Re Mike Alder's reply in Autumn '89 to mine of Spring '88 in response to Winter '88's letter advising us to secrete astrology magazines from public gaze in newsagents . . . (whew . . .)

Being a clear-thinking female, I will *not* attempt as requested to deduce Mike Alder's star-sign from one mere letter. *His* wild deduction that I am a female pill user from similar slim evidence *may* show signs of potty opinionated male menopausal irrationality . . .

But enough of social pleasantries. The cycles of emotion to which I referred do not correlate with the female cycle of 28 days. The Moon actually travels faster and changes sign about every other cycle.

My tendency to cry is when the Moon is in Gemini, my ascendant sign. Far from encouraging a blind belief in 'fate', modern astrology can help us recognise that what we experience is a reflection of our inner energies. It can help us (if necessary) to take charge of our lives by pointing out the many facets within us and guiding us to ways of integrating them. As a

philosophy, it explains the wholeness but ever-changing nature of existence. It encourages tolerance of differences. Don't judge astrology by star-sign columns and magazines. You don't judge medicine by 'Dear Doctor' columns. Go by recommendations only.

Read Alan Oken's 'Complete Astrology'. He's logical, clear (and spiritual) and should stand up to the kind of nit-picking he'd be subjected to by the can't-see-the-wood-for-the-trees mentalities that your infuriating but well-meaning publication attracts.

Yours lovingly?

Angie Lyndon

P.S.: A quote from Alan:

"If an individual tries to understand through his rational processes that which is larger than his reason, he will limit himself by his own definition of reality".



Creationist Belief

Dear Sir

In the survey of creationist beliefs (*the Skeptic* Vol.8, No.4) it was reported that 71% of the creationists sub-group (C-group) polled claim that they practise their religion.

However, given a C-group of 36, it would seem that there could be no responses claiming practice of religion between 25 (69%) and 26 (72%).

Secondly, given that 31 of the 36 were from forms distributed at the Assemblies of God hall, 71% seems too low a positive response. Concerning the question of what creationists actually believe, one question was variously reported as: "Do creationists believe that two different kinds of animals could have a common ancestor?" (once) and as "creationists believe, different species can have common ancestors" (twice). Now creationists see a considerable difference in these questions, despite the fact that Karl von Linne (aka Linneaus) originally chose the word 'species' as the Latin word for 'kind' (aka Biblical kind).

However, equating 'kind' to 'species' leads to accommodation problems on Noah's Ark, therefore practically all Creationist sages insist that while all members of a kind are descended from their ancestors, different species may be part of the same kind.

Just what a kind is supposed to be (other than a kind is a kind is a kind) is not easy to determine.

I examined 11 creationist works by eight different authorities and received no help whatsoever. Two (amazingly including the ‘standard reference text’ *Scientific Creationism*) made no attempt to define ‘kind’ or how it related to animal relationships. I did learn that the kind is the basic created unit and (in a single sentence) that there is uncertainty what is meant by kind even though the word has a definite and fixed meaning.

Five works made no definition (other than Biblical) or declared that it was difficult or impossible to determine what a kind was (but it was not the same as a species).

Duane Gish has given two definitions. In 1978, ‘a kind includes all animals or plants that are truly derived from a single stock’. This is, of course, an undefinition as it is no help in deciding which species are in a common kind. Gish insists that creation does not exclude the origin of species from a common kind. More recently Gish (1981) has produced “a generally interfertile group of organisms that possesses variant genes for a common set of traits, but that does not interbreed with other groups of organisms under normal circumstances”.

This is at last a workable definition. However, it is also a good paraphrase of the current definition of species. Then does kind equal species? Creationist Scott Huse may not think so. In his book (1983) in the space of a dozen lines, he gives an: example of an interspecies cross as being across the boundary of kinds, the statement that kind has no correlation to the ‘arbitrary Linnean taxonomic system’, but the ‘family’ designation may be a reasonably close approximation, and the Gish definition which equates kind with species!

Ignoring the unfortunate Gish definition, eight out of the 11 books (and all authors) definitely stated that kind was not the same as species. Returning to the survey, the question is: Were 36% of the C-group creationists of such sophistication that they were aware of the creationist sophistry (different species can have a common ancestor), or have 36% of the C-group lost faith in the literal meaning of Genesis (different kinds can have a common ancestor)?

That most of the C-group declared that the Earth is young (6000 to 20 000 years old) is also interesting, as in the past there has been Assemblies of God support for the ‘Gap Theory’ old earth position, a view strongly advocated by James Swaggert (until recently).

That so few of the C-group felt comfortable with a 4,500 million year old earth may reflect young earth

missionary work among the Assemblies of God.

Notes:

Statements that a kind is not the same as a species were made by:

* Malcolm Bowden, ‘The Rise of the Evolution Fraud’ (1982)

* Wayne Frair and P. Davis, ‘A Case for Creation’ (1983)

* Duane T. Gish, ‘Evolution, The Fossils Say No!’ (1978)

* Scott M. Huse, ‘The Collapse of Evolution’ (1983)

* Robert Kofal and Kelly Seagraves, ‘The Creation Explanation’ (1975)

* Henry M. Morris, ‘The Troubled Waters of Evolution’ (1974)

* Gary E. Parker, ‘What is Creation Science?’ (1982)

* Randy L. Wysong, ‘The Creation-Evolution Controversy’ (1976)

* Parker did not mention ‘kind’, but used the euphemism ‘created types’ in his book ‘suitable for use in public schools’.

Allan Lang

Colin Groves responds:

I thank Allan Lang for raising the matter of Created Kinds. First, to explain his queries in his first four paragraphs.

(1) There were only 35, not 36, creationists who answered the question whether they practised their religion (and only 21 of the E-group). I was about to write that this explains Mr Lang’s query, but I then noticed that inadvertently I had calculated the wrong percentages - percentages of Yeses and Noes that were C-group and E-group, instead of percentages of C-group and E-group that were Yeses and Noes. Apologies, apologies, the figures should read:

C-group - 91.4% yes (i.e., 32 out of 35), 8.6% no (i.e., only 3 out of 35);

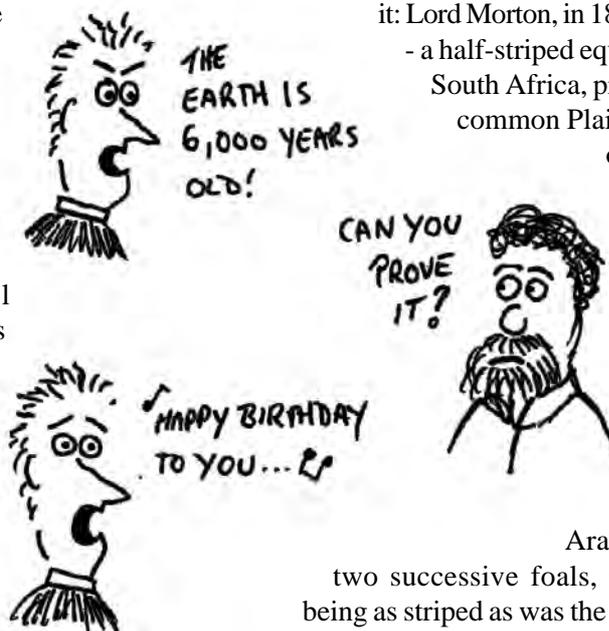
E-group - 61.9% yes, 38.1% no.

The chi-squared, being calculated on the raw data and not on the percentages, is correct; but the new results make quite a bit of difference, and in particular it gives the lie to creationists’ claims to be the only Christians.

(2) The actual question asked about common ancestors was the one given in the Results section of the text: do they believe that ‘two different kinds’ can have a common ancestor. The ‘species’ version was my too-hasty attempt to put it into a telegraphic form for the

Table. And so to Created Kinds. The great Linnaeus (his actual name was Carl Linnaeus - he became Carl von Linné when he was elevated to the aristocracy) led the way. But, as Mr Lang notes, the logistical problems of Noah's Ark render it impossible for modern creationists to follow his lead; another instance of creationists making facts fit hypothesis rather than the other way round.

Mr Lang has done a good job of collecting creationists' definitions (or non-definitions) of 'kind'. Gish's (1981) definition, equating it with species, is the only one to follow Linnaeus and so has those Ark-problems, but will of course have quite a lot of exceptions, like the zoological species criterion. Dogs and cats cannot be persuaded to interbreed; horses, asses and zebras may interbreed, but hybrids are sterile (with perhaps a very few exceptions); cattle, gaur, banteng, yak and bison will interbreed and the male hybrids are sterile but the females are fertile; lions, tigers and leopards do not interbreed in the wild, but may do so in captivity, and their hybrids are fertile; hamadryas and anubis baboons interbreed in the wild, but over a very narrow band where their ranges meet; Barren-Ground and Peary Caribou interbreed in some areas, but not in others; Herring Gulls and Lesser Black-Backed Gulls co-exist without interbreeding in north-western Europe, but are connected by an unbroken gradation of intermediates going around the Arctic Circle; white-backed and black-backed magpies are connected by a continuum of intermediates through northern Victoria and south-eastern NSW. In other words, all stages from complete reproductive isolation to complete multi-generation interfertility exist: exactly what we would expect under the evolution model, but inexplicable if one wants to believe in once-for-all created 'kinds'. Of the 'definitions' surveyed by Mr Lang, the one I like best is the one (out of several) given by Scott Huse, that it may approximate to the 'family' designation. There is an increasing inclination nowadays to include humans and great apes in the same family (Hominidae), so if creationists would agree on this definition of Huse's then the outrageous misrepresentations of palaeoanthropology by Gish, Bowden and others would cease.



This is perhaps the point to refer to Carl Wieland's letter in the Autumn 1989 issue of *the Skeptic* (9, 1). He says, in his second point, that he did in fact give a definition of a created kind, though 'what I said was there was no possibility of a non-tautological definition', which is as good as no definition in my opinion. Still, I may have missed something, but if I remember correctly we were getting bogged down in Lord Morton's quagga at that juncture. I do not recall exactly what point Carl was making (though he seemed to be arguing that all equids were of a single created kind), but the case has historical importance, and has something to teach us in the present context, so I will briefly recount

it: Lord Morton, in 1820, acquired a male quagga - a half-striped equid (now alas extinct) from

South Africa, probably a subspecies of the common Plains Zebra. Having failed to

obtain a female, he mated

it to a mare (a seven-

eighths Arabian), and a

hybrid was born,

which had some

stripes and, like its

father, an upright

mane rather than a

flowing one like its

mother. The mare was

later bred to a black

Arabian horse, and produced

two successive foals, which were described as

being as striped as was the quagga hybrid, and having

upright manes. Lord Morton was convinced that the

quagga had 'infected' the subsequent offspring of his

erstwhile mate, and Darwin, in *The Origin of Species*

and elsewhere, was impressed by such supposed

examples (and, of course, a similar idea can be found

in some popular circles today: 'you can never get a

pedigree litter from a bitch that has had cross-breeds',

or 'a white woman who's been with a black man can

never have pure white babies'). The theory was called

Telegony.

Darwin did, however, consider an alternative:

'reversion'. Did hybrids tend to revert to an ancestral

stage in the evolution of the group to which the two

parental species belonged? J. C. Ewart in 1899 wrote

a book, *The Pencyuik Experiments*, in which he

described similar experiments which he had conducted.

He refuted the 'infection' idea, pointing out that

surviving paintings of Lord Morton's animals failed to

substantiate the 'upright mane' claim, and that horses

can occasionally have fairly marked stripes anyway.

One of Ewart's mares, which had previously borne a

foal to a Plains Zebra, bore a perfectly normal foal to

an Arab stallion. On the other hand, the hybrids, sired by the same zebra on five different mares, were more closely striped than their sire and not halfway between their sire and dam, and he favoured the 'reversion' theory.

I suspect that creationists will want to use Ewart's experiments as a basis for defining a 'kind'; the hybrid could be said to show that the original genes are still there (as indeed they could be: I wonder if they realise that such a conclusion amounts to an acceptance of evolution?). If I read their minds correctly, they will have to come to terms with the sterility of the hybrids, the existence of non-overlapping differences between the seven living equid species in skulls, teeth, limb bones, blood proteins, chromosomes and mitochondrial DNA. Were I interested in trying to deduce how many 'created kinds' of equids there are, I just would not know which way to argue: probably that they are all different. The problems do not end there, as there is the question whether the Przewalski Horse (from Mongolia, though now extinct in the wild) may not really be a different species from domestic horses, as its chromosome number is different. The six different subspecies of the Onager (or Asian Wild Ass) differ rather strikingly, and you have to accept that different alleles have become fixed in each one (ie., evolution has occurred), yet they are all interfertile. Exactly what you'd predict on the evolutionary model, of course.

I think that the survey question on 'kinds' indicates the complexities of this matter. If you try to maintain a belief in these 'kinds', you are led into such devious sophistry that the argument becomes impossible to communicate to the ordinary fundamentalist-in-the-street. The unfortunate creed-follower knows that the Bible is supposed to be inerrant, but has no idea what mental convolutions that proposition leads to - and, for sure, the leaders of their faith are not going to let them into the secret, even if they have thought about it themselves. I suspect that it is the same with Young Earth versus Gap Theory: the latter is compatible with the corpus of geology (if of nothing else!), but does not square all that well with Biblical inerrancy, so could be difficult to get across to the congregation at large.

Of course, the recent exposure of the fraudulence of Jimmy Swaggert could have something to do with it too; but one hopes that the Assemblies of God would not jump to the conclusion that a moral failing implies intellectual failings as well.

Colin Groves

The Numbers Game

Dear Sir

Jim R. Wallaby's research into the variables affecting Numerology (Autumn '89) was marred by the omission of the history of the establishment of the International Date Line, and its consequences. Had this been fixed on the western side of Australia, everyone's Birth Number would drop by one. Arbitrary bends in it quite unfairly deprive expectant mothers of the westernmost island of Fiji of the power to influence the character and personality of their offspring by moving a few yards east or west prior to giving birth.

Its location also raises questions for Seventh Day Adventists: how do their adherents coming here from America cope when it comes to determining the Sabbath? Does it make a difference whether they come via Europe or via the Pacific?

On another matter, the Lyons/Kovarch/Groves survey of beliefs on creation and evolution (Summer '88) was unduly restrictive in asking about the school time to be given to creationism and evolution only. How about the Aboriginal stories of the origins of this land and its people?

There is a case for them to have at least equal time relative to the Biblical account. Firstly, they represent a far more mature and ancient tradition, pre-dating the Book of Genesis by tens of thousands of years. Secondly, they are indigenous: they are the stories of the formation of this land, these trees, rivers, hills, animals, birds, etc., among which we have chosen to live. The Bible says nothing about Uluru, Boobera Lagoon, eucalypts, kangaroos, platypus, kookaburras, etc. So Aboriginal stories add a relevance and immediacy lacking in those formulated in the eastern Mediterranean, transported across Europe, and brought here in the luggage of colonialism.

Finally, they have a good track record. It is fair to grade such stories by their fruits: the extent to which they provide a basis for harmonious relations between people and land, within groups of people and between groups. Many, including social anthropologists around the world, are coming to recognise Australian Aboriginal society as a front runner here, with much to teach us all. Inviting people to think about such matters may put some dents in dogmatism, and remind them whose land it is they live in.

Richard Buchhorn



Priorities

Dear Sir

It is good to see the growth in the size of *the Skeptic*, however all it means is that the converted have more to read.

I would like to see a reduction in the size of *The Skeptic* and the pages that would normally have been printed used as bulletins in campaigns of awareness raising. Some destinations could be the editors of all Australian newspapers and magazines, Departments of Consumer Affairs, TV and radio stations, etc. The mailing would coincide with each issue of *the Skeptic* and responses could form future articles for *The Skeptic*. Hope you find these ideas worthy.

P. McGrath

Editor's comment: *To a certain extent, some of your ideas have already been acted upon with the publication of Skeptical. We also already have a large media component in the magazine's circulation list, and many newspapers, radio and TV stations pick up on specific stories for use in their own outlets. Sometimes, however, neither the magazine nor a direct approach is successful in soliciting media interest - see Harry Edwards' update of his numerology investigations in this issue. As co-editor of this journal, I would love to actually see an increase in the size of the journal rather than a decrease, to ensure that our valued supporters are getting their money's worth. Thus editorial contributions are always welcome. Your idea of bulletins will be discussed at future committee meetings. Thank you for your suggestions.*

Tim Mendham



Teutonics

Dear Sir,

In *the Skeptic* (Vol. 9, No. 1), the ninth line from the bottom of the left hand column of page 17, the editor has seen fit to include the name of one Ludwig von Beethoven. As the author of the article in question, I take exception to the editor's high-handed attempt to make me appear to be an uncultured buffoon who doesn't know a von from a van. My only regret is that the practice of horsewhipping editors on the steps of their clubs has, sadly, fallen out of fashion.

Jim R. Wallaby (Sir)



Publicising Creationism

Dear Sir

The recent public meeting 'Confronting Creationism' in Melbourne*, while it was very good and well organised, lead some to question whether one now needs publicity to continue campaigning against the creationists in Australia. By doing so, one is according them a prominence that they do not deserve instead of allowing them to sink into the obscurity that they do deserve. Campaigning should perhaps be related to the extent that the creationists seek to impose their views on everybody else and to the degree of harm or potential harm they bring about (especially in education). No amount of campaigning or argument will convert committed creationists, and it is a lesson of history that persecution of this or that religion only serves to strengthen it and augment its powers of survival. It does not seem (and in this I ask for information) that creationists are creating (pun intended) very much havoc at present in Australia; even in Queensland, according to one of the leaflets handed out at the meeting, the option of teaching the creationist 'theory', as allowed by current legislation, is in practice ignored by most teachers. Perhaps, then, the creationists should simply be increasingly ignored. However, I do agree that continued vigilance is necessary.

By all accounts the situation would appear to be very different in the USA, at least in some of their states. During a visit to Virginia in 1986, I recall seeing an item on the local TV news about a child at a public school in one of the Carolinas whose fundamentalist parents objected to virtually every curriculum and every syllabus book; there was no pleasing them. The school authorities were driven 'scatty' trying to accommodate these people in a very laudable attempt to allow freedom of conscience to every citizen, however crackpot that conscience may be. I do not know the outcome nor do I remember the exact details of the affair; I think the authorities ended up by sending the child to some fundamentalist college albeit at considerable extra cost in transport, etc. Perhaps if any American Skeptics see this letter, they might be able to enlighten us further.

Michael Gamble

* Organised by the Victorian branch of Australian Skeptics and held in March of this year, this meeting presented scientific responses to creationist arguments. It had been originally intended that the meeting would be a debate (or at least have creationist representatives present) but creationists were not able to attend officially. Nonetheless, the meeting attracted a large audience. - Ed.



Is Something Nothing?

Dear Sir

Dr Henson's comments on science (Summer '88) were so wise as to approach art.

May I add from a point of view in art a few common expedients used in science which even fit the definition of 'metaphysical' (wash your mouth out).

Viz, $\sqrt{-1}$, the tesseract and extra vectors. Each are inventions which conjure from the creative process which is common to both science and art. Other useful expedients exist in science unchallenged by strict scientific method. Imaginary numbers exist only as concepts, one may say they are irrational. Ratios (π , for example) were so described. Such creations dignify reason, even though like the tesseract they are meta real, other than real, from a dream. They are works of art, for where do they exist?

I know that mature scientists can distinguish unreal expedients of science which are in themselves essentially the same as components of pure fine creative art. Where I do have doubt is when artless scientists unaware of the myriad philosophies and masterpieces of art fall through illusions into delusions, mixing bits of art with science in an indiscriminate syncretic manner. It's always obvious: the distinguished anthropologist, but bigoted vitalist; the eminent physician, but vague pretender to ineffable powers; the learned geneticist and pseudo-poet. Suddenly all lawyers are Oliviers and Laughtons, doctors are really aestheticians usurping psychiatrists, the PhD brigade renowned for gullibility are awash with ineffable expedients once unutterable in respectable scientific circles. This art condition is usually a mature onset disease, often presenting in frustrated unpublished and unrequited scientists, as well as the very excellent. Strange how you'll notice matured scientists so subtly mantle themselves with all that is so very acceptable from art: cadences, mood, certain contrived empathy, even panache, then proceed to make their silk ear out of a sow's purse. I wish to make the point they are artless.

Attempting to make something out of nothing or nothing out of something is an art. When scientists attempt to do this they must realise they are being artists, and in the company of artists they will be conspicuous. Dr Henson's distinct and enlightened statements graciously present scientists to an analysis of the criteria of art found in science by his defining of the borders of science, by showing an overview of science so that whatever may be art (good or bad) will stick out.

Scientists who can differentiate principles of art from principles of science stand like the creator or conductor of a symphony who makes a synthesis of such elements as uniqueness, ineffability and inimitability, of universality, repeatability, replicability and predictability - to name but a few. The artistic scientist observing what is of nothingness, dream stuff, ($\sqrt{-1}$) an expedient negative mathematical reality, and what is of something real, strong-weak nuclear forces, electromagnetism, gravity, is masterly and is not heard piping on with mythmania, with ugly mixtures of good science and bad art.

Owen Shaw (Artist)



Reasons to Believe

Dear Sir

I agree with Mr H. Harant's view in *the Skeptic*, Summer '88, that we would be better occupied in trying to understand believers rather than ridiculing minority religious beliefs. The Editor would do better to be concerned about the many Skeptics who are not aware of the harm they do to science by rushing into print with unchecked false statements, publishing half-baked surveys without bothering to do pilot surveys as a preliminary, as was the case with W. Grey in the Winter '88 *Skeptic*. It is not easy to survey things like religious belief, etc., which are very personal and unconscious rather than thought out by the respondents. This is why most such surveys are worthless. The real questions we should ask is "What do people 'really' mean when they answer a question like 'Do you believe in God, astrology, etc.'?"

I have made a most extensive personal one-to-one study of a large variety of 'believers' in the supernatural, etc. What has impressed me and other careful workers is that most have scarcely any knowledge of the religion, cult, etc., they say they believe in. Nor are they the least bit interested in learning about it either. What is most important for us is to draw the distinction between 'believers' and 'trusters'.

Most 'believers' in a religion, church, etc., are ignorant of its tenets. Now, you can't believe in something you have no idea of! What they do is trust their Church, Rev. Swaggert, astrology, etc. They do this in much the same way we trust our dentist, doctor,

motor mechanic, etc. And if we don't understand these matters, we are just as likely to get ripped off. But there is far too much to know, so we all take 99%+ of the world on trust. Many Skeptics are quite wrong about the things they like to pontificate about and can't be bothered getting an in-depth knowledge before they become an 'expert', so what right do they have to complain about astrologers and their clients?

The level of belief and trust is also qualified. The real measure is whether people will put their money where their mouth is. Recently, an athlete intoxicated by steroids believed he was indestructible and drove his car at 40 mph into a tree to prove it. What was proved was that he was a true believer! Now all these surveys, including the worst, agree that women are grossly more religious/superstitious than men. If a respondent *really* believes/trusts astrology, the odds are that we are dealing with a female. However, if a male college student goes round saying he disbelieves in astrology he seriously jeopardises his love life! All such accidentals must be considered when we study the results of a survey. People are notorious at stating what they believe will be acceptable rather than what they really believe! A person may say they don't believe in astrology when what they really mean is that they believe that it works, but is demonic. In other words, they are making a moral judgement rather than making a technical statement, but what else can they do when faced with such leading Yes/No questions?

Since females are so superstitious, I propose that the male homosexual would also be and this would make superstition an even more exclusively female attribute. I think we should be asking why females are like that? My theory is that the female evolved to be superstitious while the male evolved otherwise. Being superstitious really means relying on intuition which is a notable female attribute. I also believe that our belief-structures depend rather more on hormones than intellectual activity. I have much *modern scientific* evidence to back this theory up which comes under the heading of 'Neuroscience' which is a new major field of science which has developed in the last generation. However, I am not going to pontificate about it! Instead, I would like my theory to be considered and tested in the best scientific tradition. Mr Harant is right about the waste of pages debunking the 'tooth fairy' when only the Skeptics read it anyway! So how about less 'witty' self-congratulations and more serious thinking Skeptics?

Keith Rex

Editor's comment: *On one point, the Skeptic is sent to many people other than just fellow Skeptics. We have many non-Skeptical readers, and the*

magazine is widely distributed to the media, where it is often used as the source for investigative journalism. We would also welcome comment on Mr Rex's views.



Heaven & Hell

Dear Sir

I was somewhat skeptical when I read the article under the heading 'Heaven is Hotter than Hell' (Autumn '89), although I had been told that one could prove anything from the Bible by the careful selection of verses. It was with considerable curiosity that I turned to the Bible for verification of the article. I was, however, greatly disappointed to find that the verse quoted had been misquoted and also quoted out of context. The latter is of course a fairly standard technique used by fundamentalists.



Isaiah 30:26 quoted in *the Skeptic* reads 'Moreover the light of the Moon shall be as the light of the Sun, and the light of the Sun shall be sevenfold as the light of seven days'. Isaiah 30:26 in fact reads 'Then Moonlight will be as bright as Sunlight and Sunlight itself will be seven times brighter - like the light of seven days in one' (New Jerusalem Bible). Isaiah 28-31 is a collection of sayings when Isaiah exerted all his influence in an unsuccessful attempt to divert Hezekiah from taking part in the rebellion against Assyria. Heaven is not mentioned, although the description obviously appealed to the writer of the article as Heaven, but the more pragmatic Hebrew dwelt little on the afterlife, looking for help and good times here and now. The figure seven indicates fullness and completeness, and the brightness of the sun a metaphor for glory.

A modern myth has been created.

Dan McLuskey

This letter has been abbreviated slightly for reasons of space.

Vol 9 No 3 - 1989

Art & Science

Dear Sir

Now that Mr Alder has established that it is permissible for Skeptics to be rude about other people, may I throw in my halfpenny's worth of opinion about those of Mr Shaw (*the Skeptic*, Vol 9, No 2). In his desperate attempt to marry art and science, Mr Shaw merely crushes any scepticism that might otherwise have greeted the proposal that the words "art" and "fart" are etymologically linked.

Artists belong to that subset of people who can run off at the mouth, or other appropriate orifice, for half a page without actually saying anything useful. In this they are akin not to scientists but to politicians. The last are readily distinguished as they carry a large knife. The artist, on the other hand, carries a well-thumbed copy of Roget and a large knife.

May I close by suggesting that the editor donate the rest of my half-page to some impoverished artist with somenothing to say about science? Or leave it blank. It amounts to the same thing.

Dr J.W. Marchant
(Fartist) (Cum Loud)



Skeptics & Religion VI

Dear Sir

Phil Shannon criticised (Vol 9, No 2) the Skeptics for taking a soft line with non-creationist Christians.

It is true that sceptic and Christian aims don't have to clash, and many Christians can be involved in the healthy art of scepticism without compromising their faith. But what are the Skeptics saying when they claim it is fine to treat the Old and New Testaments as "symbolic"? Is this a pat line to avoid offending Christian supporters without committing themselves to the same belief?

As a Christian, I find it more offensive that my life is defined as a vague belief with the best of intentions but no substance. I would rather be told that my ideas

are up the creek; at least that is treating me as a human and not as a vegetable.

However, Mr Shannon lets down the side of sceptical inquiry when he states theories as facts.

For instance, he claims that Jesus believed himself to be "a corporeal man born of spermatozoa and egg". Where he gets this from is anybody's guess. We have no written record by Jesus himself of what he believed; only the sayings attributed to him in the Gospels and elsewhere. In none of these does it indicate that he believed himself to be mortal. If Mr Shannon has better sources, he should reveal them, or maybe he should reassess what side of the argument he is on.

Later he says: "The Gospels and Acts were ghost-written at least fifty years after the events and were selected out of hundreds of documents by an anti-Jewish and pro-Roman Church intelligentsia for political reasons because they turned the devout Jew Jesus, who was the earthly Messianic leader of the Jewish poor against Roman imperialism, into a Divine being concerned only with spiritual matters and ethical teaching and who advocated suffering, patience and pacifism to Jew and Gentile in the face of Roman power." There are at least nine unsubstantiated statements of belief rather than fact in this one sentence.

The dating and authorship of the Gospels and Acts may be debatable, but "ghost-written" and "at least fifty years after the events" are not indisputable by any means. "Hundreds of documents" is hyperbole, "anti-Jewish and pro-Roman" is indicative of Mr Shannon's political bias, "devout Jew" ignores the role of the Sanhedrin in the crucifixion of Christ and the martyrdom of disciples, "earthly" is a statement of belief (or inability to believe), "leader of the Jewish poor against Roman imperialism" seems to have greater source in Monty Python than established fact, and "a Divine being concerned only with spiritual matters" and "advocated suffering, patience and pacifism" is a total misreading of the New Testament. These are theories put forward by some scholars; they are not proven facts. If they were facts, there would be nothing for Christians and non-Christians to debate about. Christians would be clearly believing a lie.

Scholars have been arguing over Christianity for hundreds of years, and no one side has been able to prove the other wrong.

If the Skeptics were to become involved in this debate officially, then there are two points that need to be considered: scientific proof and evidence.

If scientific proof is defined as theory based on accumulated observations, then we strike a problem. Not only did the events occur some time ago, but to be

consistent with theology they had to be one-offs. The resurrection and virgin birth were such events. Therefore we have no controls, and these events cannot be repeated for testing. You see, we would end up arguing faith anyway. Christians would say these would be one-off events, non-Christians that the events never happened and that is why they can't be repeated.

The other resource we have then is evidence, defined as facts in support of (or for) a conclusion. As someone who is currently involved in research in this area, I can give the warning that it is much more complex than something that can be whisked away as a "propaganda act".

Evidence can be found in investigations on dates of letters, their authenticity, historical finds, etc. What conclusions we draw should be based on which way the evidence holds best, not on preconceptions. Hopefully such thorough investigations will allow Christians and non-Christians state with conviction why they believe or don't believe. Let us always be careful of sewing coats onto buttons, or stating what is speculation as truth.

Belinda Wesley

PS. The Editor's note was also a little weak. It is true, faith cannot be tested, but what a faith is based on can. The life, death and resurrection of Jesus is the central point of Christianity. If these events did not occur physically, then the faith means nothing. Christianity is not a lifestyle based on "those areas ... which rely purely on the faith of the follower". The evidence for and against Jesus as Son of God is certainly worth investigating - but only for the brave.



Numerology



Dear Sir

Why all the fuss about numerology? (Vol 9, No 1). Its authenticity is well established. Plenty of proof is available. Let me remind you of two well-known examples.

First, no less an unimpeachable authority than the Bible itself. Look at Psalm 46 in the King James version. The 46th word is "shake". Count backwards from the end and the 46th word is "spear". Join them and we have "Shakespeare". The King James Bible translation first appeared in 1610. In that year, Shakespeare was 46 years of age. If that does not constitute a proof of numerology, what more do you

want?

The second example relates to the eventual confusion of the sceptic Diderot, the French philosopher. Diderot, at the court of Catherine the Great in Russia, earned his keep by trying to convert the courtiers to atheism, to the annoyance of Catherine and many others. She commissioned Euler, probably the greatest man of science and mathematics Switzerland has ever produced, to silence Diderot with an algebraic demonstration of the existence of God. Before the whole court, Euler advanced towards Diderot, who knew no mathematics, and said gravely, in a strong, convincing tone

"Sir,

$$\frac{a + b^n}{n} = x,$$

hence God exists; reply!"

Diderot had no answer and he immediately left the court and returned to France, completely humiliated.

After these convincing and conclusive examples, you could not possibly have any further doubts of the efficacy of numerology.

Harold Berman

Vol 9 No 4 - 1989

Astrological Whatsits

Dear Sir

I'm glad to submit my star sign to the Skeptic survey. However, there is an easy and assertive way of dealing with star sign inquiries. This is how it goes:

Q. And what's your star sign?

A. I'll bet you can guess what it is. I've been told I'm typical of my sign.

My worst guesser took eleven goes to find it.

I'd like to report that it's an infallible cure for character analysis on the basis of star signs, but it's not. Even when they take three or four guesses they still say, "Of course! You are a typical *whatsit!*"

I've yet to have someone guess my star sign first off. But perhaps I'm wrong. Maybe my sample is too

small, or biased.

Perhaps *you*, on the basis of this letter can guess what my star sign is.

Michael Glass



Dear Sir

It appears that there is a possibility of a link between your mental ability or physical capabilities which is caused by mental and physical variations by pre-natal or post-natal environmental factors (not, however, the location of the heavenly bodies).

A survey indicates that a person born in a hot dry climate can in later life feel reasonably comfortable in hot dry conditions, but not in climates with a high humidity.

If this should be true, then is it similarly possible that a person born during the cold months could also have a slight change in brain structure or chemical composition, which for instance might give them something of a predisposition to use their mental abilities more than their physical abilities, have a different appreciation of colour or music, etc? Of course, this would mean that people born with a certain sun sign in the northern hemisphere would have the opposite attributes to someone born at the same time in the southern hemisphere. The random capability of students of astrology to deduce your time of birth seems to confirm this!

It could, however, be a basis for some people to say “you’re a typical whatsit”.

The results of the sun sign survey will be interesting. Unfortunately there is probably too much random movement of members from their birthplace to check the feasibility of the above.

Robert Jarrett



The Expedience of Unreal Entities

Dear Sir

I am sorry for Dr Marchant (Vol 9, No 3) criticising my attempt (Vol 9, No 2) at describing unreal entities in science. I chose the tesseract, the square root of minus one, and extra vectors. I could have added the spherist model for atoms. It is perfectly correct to describe these expedients as “meta” (beyond).

He states I said nothing useful, but hasn’t dared to

enter sceptical inquiry. It is useful to know those expedients are realities of a kind, as are the “surrealities” in painting, in poems of dreams or in visionary pictures. I am speaking of fine art, the most valuable product of mankind. I simply pointed out how these well-known and understood components of art and science get mixed up by some naive and artless scientists. It is useful to make a point of assessing the products of creative science with criteria of excellence from art, as useful as criteria of the scientific method are, namely: replicability, repeatability, predictability and universality. I may have added the capability to be imparted objectively. From art I glibly mentioned: uniqueness, ineffability, inimitability. I may have added differentiation, but then you could say the four known forces are differentiate. Does the critic pretend to know more?

I spoke as an artist, skeptical and critical of artlessness in science. I did not attempt to “marry” art and science (as the doctor stated) for they are inseparable and transcendent of each other anyway. I sought to analyse and differentiate both pursuits in noble terms (not vulgar, as his flatus inferis).

My title was “Is Something Nothing?” which should pique a sceptical view of those who make something out of nothing, the old cosmogenesis concept for example, or make nothing out of something, an illusion in art and magic. Both are spurious art which may masquerade as science. Sceptical inquiry into such things, I would suggest, may be elegant. Now let me be specific. Since so many members of the AMA practice acupuncture, I am curious as to how they explain its use to patients, the AMA and the NHMRC. Perhaps Dr Marchant can describe distinctly what are the *scientific* facts of acupuncture distinct from the “art” of acupuncture. Sceptical medical consumers and Medicare are curious. I am happy to publish a reply following a statement by the AMA.

Owen Shaw
(Artist)



“The Quote Book” & Paper in Rock

Dear Sir

Skeptic Professor Plimer has cleverly exposed creationist Dr Andrew Snelling with the old paper in the rock trick (*the Skeptic*, Winter ’89 pp11-12, Spring

'89 pp28-30). He has also exposed his own appalling lack of scientific rigor.

He claims to have demonstrated that Snelling distorted, misquoted and lied about the existing body of scientific fact, communicated half truths and innuendo, fabricated data, created scientific facts *ex nihilo*, undertook no new research, fitted his facts to preordained dogma and did not critically examine his own ideas. According to what Plimer told us, Snelling is, indeed, guilty of not critically examining the disinformation he received in good faith from Plimer before publishing it in his newspaper. And yes, he did so because the "facts" conveniently fitted his preordained dogma and he also failed to do the research that he, himself, said was necessary. Snelling did not, however, distort, misquote, lie, communicate half-truth or innuendo, fabricate data or create scientific "facts" *ex nihilo* as Plimer claims. I also checked the letter by Dr Carl Wieland in *The Australian Baptist* (March 8, 1989) quoted by Plimer in his second article. Plimer says that in this letter Wieland "informs many of his sect's supporters that the CSF knowingly promoted their booklet of quotes by scientists (*The Quote Book*) despite an unacceptable number of errors and the fact that this booklet has been described by scientists as 'a pack of lies'!". What Wieland actually said was that the booklet "was withdrawn from general distribution years ago when it was found to contain a few (an unacceptable number) of such corruptions of the exact initial wording". Also, it was not "scientists" who had described it as "a pack of lies" but a previous correspondent who made an "oblique reference" to that effect.

Professor Plimer has also got his experimental method wrong, claiming it to be the "double blind" method. In the double blind method both the experimenter and the subject are unaware of the nature of the treatment being applied. In Plimer's experiment, the experimenter knowingly deceived the subject. My conclusion from this is that Snelling is shown to be naive and foolish but if anyone is a liar it has to be Plimer. I trust that the Australian Skeptics maintain a healthy skepticism about the talents and achievements of their skeptics.

Alex Williams

Editor's comment: Most of Mr Williams' claims are answered in the response to the following letter. The "correspondent" referred to by Mr Williams was Dr Ken Smith, senior lecturer in mathematics at Queensland University, who said (*The Australian Baptist*, January 25, 1989, p6) "I hesitate to describe 'The Quote Book' as a pack of lies, but other scientists are less inhibited."



Dear Sir

The clever distortions of fact in your correspondent, Ian Plimer's, obsessed anti-creationist crusade are legion. I will demonstrate just one in the hope that, even though his approach in your magazine falls on philosophically responsive ears, your concern for ethics suffices to see fit to publish it. Plimer states [*the Skeptic*, Vol 9 No 3, page 30 - Ed] that in the March 8, 1989 issue of *The Australian Baptist* (Vol 77, No 5, page 6) I wrote a letter wherein I informed people "that the CSF knowingly promoted their booklet of quotes by scientists ("The Quote Book") despite an unacceptable number of errors and the fact that this booklet has been described by scientists as 'a pack of lies'."!

I enclose a photocopy of the letter in question so you can see for yourself how cleverly Plimer has given a totally misleading impression without *technically* telling lies. (The average reader would tend to absorb his sentence as meaning that we promoted the booklet knowing that it had errors - in fact, my letter explains that when we found it to contain a very few such errors, it was withdrawn.) Plimer is master at this sort of propaganda tactic, but I do not hold much hope that you will publish this explanation - after all, why deprive your readers of such entertaining stories that reinforce their prejudices? Incidentally, I wonder how many of your readers got the point - once knowing that it was a hoax, why should Dr Snelling waste \$20 of our money on Plimer's cheap trick? Again, most readers would have missed the point that Dr Snelling stated only that it is "highly likely" that it "may be" the mineral in question. Any objective assessment leaves Snelling's ethics and credibility 100% intact.

Dr Carl Wieland
Managing Director
Creation Science Foundation Ltd

Barry Williams responds:

Dr Wieland need have no fears about the ethics of Australian Skeptics. We are always prepared to publish letters from anyone who claims to have been misrepresented in *the Skeptic*. It remains to be seen whether the ethics of the Creation Science Foundation permit it to publish this response to his claims in one of his own publications.

In responding, point by point, to Dr Wieland's letter, I will label incontrovertible facts as such and such comment or opinion, as is necessary to expand on those facts, will also be labelled. I will ignore the gratuitously

offensive manner in which Dr Wieland describes Professor Plimer, as being a matter for Prof Plimer's own remedial action. It will be within the province of the readers and their "prejudices" to decide which exposition most nearly reflects the truth.

FACT: *The Quote Book* (henceforth *TQB* for brevity) was first published, by the Creation Science Foundation, in October 1984.

FACT: Articles by Dr Martin Bridgstock, disputing the accuracy of quotations in *TQB*, appeared from March 1985, beginning with the *Australian Science Teacher's Journal*, Vol 30 (4), pp 26-32. Further articles, by Dr Bridgstock and Dr Ken Smith, also disputing the accuracy of *TQB*, were published in *Creationism: An Australian Perspective*, released in January 1986.

FACT: *TQB* was officially withdrawn from sale?

COMMENT: We are not too certain when it was officially withdrawn from sale. We can find no reference to this in any of the CSF publications we possess. We do have documented evidence that *TQB* was on sale as late as February 1987 on the campus of Queensland University, and are reasonably certain, but cannot prove that it was still being sold considerably later. This only just conforms with Dr Wieland's statement, in *The Australian Baptist* of March 8, 1989, that it was withdrawn "years ago". Of course, the responsible approach for the CSF to have taken would have been to widely publicise the fact that *TQB* was in serious error and to warn owners of the book not to use it in argument. We have no evidence that this was done and in a letter in *The Australian Baptist* of December 7 1988, a correspondent quoted the book with approval, obviously being unaware of the fatal flaws in it. Perhaps Dr Wieland would care to send us the relevant copy(s) of any of his publications which announced the withdrawal from sale of the book or warned owners of its inaccuracy.

FACT: In his letter to *The Australian Baptist*, referred to by Dr Wieland above, he stated

"It [*TQB*] was hastily compiled under pressure and mainly from secondary sources, which turned out to include some lecturer's paraphrases originally taken from tape recordings, for example."

"Although compiled in good faith, it was

withdrawn from general distribution *years ago* when it was found to contain a few (an unacceptable number) of such corruptions of the exact initial wording."

Australian Baptist, March 8, 1989 - our emphasis.

COMMENT: *TQB* had been on sale for less than six months before it was publicly challenged as containing misrepresentations. These were *not* inadvertent misprints or typographical errors, which plague even the best publications (including *the Skeptic*), but serious misquotations which served to gravely distort the position of the author, quotations taken out of context with the result that the meaning was drastically altered, and

incorrect attributions which made checking original sources difficult for critics. Investigations conducted by Dr Ken Smith show that, of the 80 plus quotations that he has been able to check with original sources, *all but one* misrepresents the author's sentiments to a greater or lesser degree - hardly "a few".

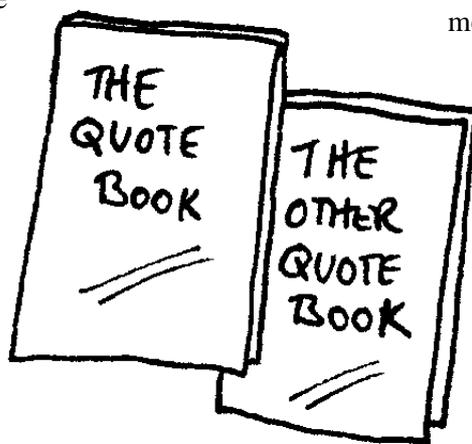
Some of the errors, though trivial, are amusing, Charles Darwin, the archfiend in the creationist demonology, has been awarded a posthumous knighthood. Surely an extreme case of Christian forgiveness. A book allegedly containing quotations from "leading scientific authorities", includes the words of Malcolm Muggeridge and Arthur Koestler neither of whom is a leading scientific authority in any field.

Just as one example of a more serious "error", *TQB* quotes leading British biologist, Lord (Solly) Zuckerman, thus:

"... if man evolved from an ape-like creature, he did so without leaving a trace of that evolution in the fossil record."

Beyond the Ivory Tower, Taplinger Pub. Co., New York, 1970, p.64. In fact, the original reads;

"For example, no scientist could logically dispute the proposition that man, without having been involved in any act of divine creation, evolved from some ape-like creature in a very short space of time - speaking in geological terms - without leaving any fossil traces of the steps of the transformation."



Ken Ham, a director of the CSF, was reported in the *Sydney Morning Herald* during 1985 as acknowledging, “that the statement was wrongly quoted, and said it would be corrected in the next edition of “the booklet.” The Zuckerman “quote” was still being used some time later. Mr Ham is also reported to have described scientists’ complaints as “nit-picking”.

There are dozens of similar cases as this, hardly “a few” but certainly “an unacceptable number”. We are happy to provide further information and examples.

QUESTION: Why, if the publishers were aware of the serious criticisms leveled at *TQB*, was it not immediately withdrawn from sale while *original* sources were checked to determine the accuracy of the quotations and a corrected version produced in its place.

COMMENT: Dr Ken Smith has discovered that many of the quotations are not taken from original sources, but are taken verbatim from other creationist publications, and including all errors. Dr Smith has, in fact, deduced that the Zuckerman misquotation above is, in fact, a quotation taken from another creationist who is, in turn, quoting another creationist who is quoting (or misquoting) from Zuckerman. This reflects poorly on the research undertaken by the compilers.

COMMENT: That a book could be published which contained so many inaccuracies and that it could continue to be sold after it had been publicly exposed as containing such falsehoods is explicable, in my mind, by one of only two possible alternatives:

(i) lamentably poor and sloppy scholarship amounting to gross incompetence on behalf of the compilers; or
(ii) a deliberate intention to mislead. It is certainly not a valid excuse to claim, as Dr Wieland seeks to in his letter to *The Australian Baptist*, that the problems were caused by “haste and pressure” of compilation.

QUESTION: As the battle between creationism and evolution, as competing scientific theories of origins, was joined well over a century ago, and as the issue was decided in favour of evolution shortly thereafter, what “haste and pressure” could possibly have been applied to the editors to cause them to make such gross and inexcusable errors? In the above *SMH* article, Mr Ham is reported to have said “the foundation [CSF] was about to publish a detailed reply to the scientists’ criticisms. “We have carefully gone through all of the original articles we quoted from and a fully documented refutation will be available soon.” That was in 1985. To our knowledge, no such refutation has been published.

The second and by far the more important major point raised in Dr Wieland’s letter concerns the experiment conducted by Prof Plimer. Dr Wieland would have us believe that some point was missed by

our readers. He may find it a novel concept but readers of *the Skeptic* are quite capable of thinking for themselves and it is unlikely that many of them would have missed the very cogent point of the experiment. However, for Dr Wieland’s benefit, I will reiterate it in terms that are unequivocal.

FACT: One of the central hypotheses of creationist “science” is that the Earth is young, typically 6,000-10,000 years).

FACT: The CSF received a rock sample containing a substance, with the superficial appearance of paper, in July/August 1988.

FACT: Paper is known to have been in use on Earth for something under 2000 years.

FACT: The rock sample, in which the “paper” specimen is found, is claimed by geologists to be more than 200 million years old.

COMMENT: If the specimen had in fact been paper, then clearly the two facts immediately above could not both be true. Looked at from the creationist perspective, it is obviously desirable to have evidence that geologists have grossly overstated the geological age of rocks. It is almost inconceivable that any scientist holding creationist beliefs could fail to conduct even the simplest tests, which, if it proved the specimen to be paper, would provide extremely strong evidence for the young age of the rock and, by inference, of the Earth. I do not believe I am overstating the case to suggest that such evidence would prove to be one of, if not *the*, most important scientific finds in human history. The implications of this find could not possibly have been lost on any scientist, particularly one who espoused a young Earth, creationist viewpoint, yet absolutely no research was conducted. **THAT IS INCREDIBLE!**

By contrast, consider the response of genuine scientific institutions to the publication of the cold fusion results of Fleischmann and Pons. Cold fusion, if it exists, represents an extremely important new field of knowledge in physics, yet it clearly pales into relative insignificance beside evidence that the Earth is only some thousands of years old. Many scientific institutions, worldwide, rose to the challenge of cold fusion, yet Dr Wieland would have us believe that his supposedly scientific foundation saw no need to conduct simple basic research into evidence for a young earth. **THAT IS INCREDIBLE!**

Dr Wieland seeks to muddy the waters when he asks why would Dr Snelling waste his time and money on tests, after the fact of the “cheap trick” were known. The major charge against the CSF is that no tests were conducted *before* the facts of the “cheap trick” were known. The credibility of the Creation Science Foundation could, however, have been marginally retrieved had it not taken Prof Plimer’s

word that the specimen was palygorskite. Had it, even at this late stage, conducted simple research it could have published the fact that Plimer was wrong because the specimen was in fact attapulgit. Even this step was not taken.

It is not for me to comment on the ethics of Dr Snelling. However, in this matter, his credibility and that of the Creation Science Foundation stands at rock (pun intended) bottom.

Addendum from Colin Groves, president of the Canberra Skeptics:

Other items which, to safeguard their scientific integrity, the CSF should now withdraw include: -

Casebook I, the Case for Creation which contains not only quotations taken out of context but even one which is actually invented (see Groves, *The Australian Geologist*, June 1989); - The *Origins* films, which contain egregious errors such as that all stages in the evolution of the horse are of the same geological age, that “Peking Man” fossils are giant monkeys, that all hominid-bearing deposits in Java are of the same age, and that the strength of the Earth’s magnetic field increases indefinitely into the past.

When the CSF withdraws all its publications which contain misleading errors, it may consider itself an institution which adheres to scientific principles.



Skeptics & Religion VII

Dear Sir

Mea culpa! Belinda Wesley (Vol 9, No 3) is right to take me to task for dropping the Skeptics’ standard and stating theories as facts. In arguing that Jesus was not a divine being, I stated (Vol 9, No 2) that he was a man born like the rest of humanity, that anything the Gospels tell us to the contrary is unreliable, and that the Gospels’ portrait of Jesus as a pacifist, an ethics teacher and a political quietist were all fictions associated with the image the Gospel authors wished to create.

I was careless. These latter statements are, as Belinda says, only theories. Evidence can be adduced for views of Jesus as both militant Messiah or meek sufferer, but such evidence cannot amount to proof

because not all the necessary evidence will ever be in. Most of it is lost because Jesus’ contemporary followers were expecting an imminent Kingdom of God on earth so they didn’t record much or do things like plant trees or crops.

It is only possible to say that some theories fit the available facts better than others. We do know a lot about the available facts of the Judaism of those times and the political and religious tenor of the Jews of Israel. As Belinda who is a researcher in this area would be aware, most Jewish, Christian and other scholars (Geza Vermes, Elaine Pagels, Karen Armstrong to drop a few names of many) have documented the expectation of a Messianic overthrow of the existing order which was severely exploiting the middle and labouring classes of Israel. Expectations differed over whether this liberation would involve physical or spiritual means but all Jewish believers expected the Messiah to be human - divinely sanctioned but corporeal. Only after Jesus’ death did his followers turn him into a divine being.

Belinda’s other comments on the veracity of the Gospels, the politics of Jesus, etc., revolve around this, for her, “central point of Christianity” - the supernatural birth, death and resurrection of Jesus. Not all Christians would agree. Even Anglican bishops have publicly disputed the virgin birth. Others perform a humanist rescue operation on Jesus and regard him as a “good man”. Skeptics do not accept without proof the suspension of physical and natural laws, whether in the bending of spoons or immaculate conception. But if the divinity of Jesus, and the existence of gods, is rejected, does this leave (in Belinda’s words) “nothing”? No, we are left with a belief which doesn’t require the suspension of disbelief, namely that in the infinitude of the universe a chance arrangement of sun and planet (in at least one solar system) gave rise to conditions that could support life.

And we are left with the understanding that religion has been one attempt to explain this life, from the harshness of nature and of social oppression, to coping with death. The question, “why religion”, is as important as the actual claims of particular religions. Patrick McBride in his article in the same issue, however, argued that we can’t, and shouldn’t, question the “what” or the “why” of religion. Sounding not unlike the Christian existentialist philosopher Soren Kierkegaard who attacked “sciencemongery” as “dangerous and corrupting” when dealing with “the spirit of man”, Patrick says that it is “not suitable” to “study the origins of religion” and that we must forsake science as the “true arbitrator of knowledge” with regard to religious claims. Religion, like art, he says, is

“a special and different kind of knowledge”.

Now there are things we can all learn from “Othello” that we can’t get from “Principia Mathematica”, but at the same time we are aware that Shakespeare was writing fiction and Newton wasn’t. The Bible and the nature of religious experience need more than a poetic response - they need the scientist, the psychologist and the sociologist to explore them without being stymied by the Christian’s “leap of faith”.

Phil Shannon

Patrick McBride responds: Phil and I may agree that a person’s belief in the divinity of Jesus Christ or Krishna is no more valid than a person’s belief in faith-healing. But, the problem is that while we can demonstrate that faith-healers are charlatans - how can we demonstrate that a person’s belief in divine beings is equally spurious? Obviously, no area of scientific enquiry should be stymied by anyone’s faith, but how can psychological and sociological studies produce empirical evidence for the non-existence - or otherwise - of divine beings?

Belinda Wesley responds: I believe it is necessary to expand at some length on my first letter and explain why it is crucial for those trying to prove/disprove Christianity’s claims by argument and/or evidence to concentrate on the resurrection. I will also show why, if you take the physical resurrection out of Christianity, the faith doesn’t mean anything - Phil Shannon seems to believe I was suggesting that without Christianity we are left with nothing, whereas what I was saying was that without the resurrection Christianity is nothing.

Some of these areas are out of the realm of the Australian Skeptics, but as many members have a clear interest in Christianity, I hope the following will be of assistance in understanding Christian beliefs. The problem with many sincere scholars and investigators of Christianity is their willingness to dance around the outskirts of Christianity and never examine the core. Phil Shannon, in his letter, states we need “the scientist, the psychologist and the sociologist” to examine the Bible and Christianity. Why not include a Christian in that list to explain what they are looking at. I can’t help thinking of three people looking at a package that has arrived in the post. They measure it, smell it, shake it, weight it and write a book on it without ever opening it to find out what it is.

To make my point clearer: Bible history, archaeological finds, dates of letters etc., are important in weighing evidence, yes. But, if you want to attack a faith you must, if only for the credibility of your

argument, have a clear idea of what the claims of that faith are.

To illustrate this point, listed below are three of the most common answers I have heard from so-called “investigators” of Christianity when asked the question “What is the ‘Christian faith’?”:

1. Christians believe in “God”. They believe in life after death in a place called “Heaven”. If you are good you go there. If you are bad, you go to an awful place called “Hell”. That is why Christians try to live good moral lives: they want to go to Heaven.

2. Christians are immature people who need an imaginary friend to help them cope with a difficult world. The Sunday School Jesus “meek and mild” makes for an excellent imaginary friend, as he will never make you do anything you don’t want to.

3. Christians are poorly educated people who cannot explain thunderstorms. Therefore the “old man in the sky getting angry” provides an excellent explanation. To a Christian, the above answers do not lend any credibility to these “investigators”. Of course, I couldn’t agree more that a large portion of the blame for these misconceptions should fall on churches that do not explain their faith clearly. But, surely, if someone claims to be an investigator of a faith they could make some effort to find out what the faith is. The New Testament explains Christian faith over and over again. How do these people manage to miss it if, as they claim, they have read the Bible thoroughly for many years?! I will explain briefly what the Christian belief is, as I believe this will help investigation and constructive argument. I can only put it very briefly here, because I am a guest, so to speak, in this magazine. But please investigate the subject further on your own. Also, the best way to argue with a Christian, when in the area of internal evidence, is to use the Bible. If you have never read it (Genesis to Revelation, as it should be read) how can your argument be taken seriously?

This, then, is the Christian faith very briefly put. God created the earth and humankind (the Bible is a book of “why” and not “how”, but that is another argument). He filled the earth with good things. Humans were created to have friendship with God, peace in themselves and with each other. God didn’t want robots, so he gave humans the ability to choose. In this freedom, they could choose to live in fellowship with God, or go their own way.

The temptation to be our own bosses was apparently too much. When we broke away from God, we found ourselves at odds with the world, ourselves and others. Sin entered our world and our bodies bringing pain and suffering. (Sin is often portrayed as stealing, murder, wrongdoing, etc, but sin is actually a disease

of our soul. Bad actions are only the expression of that disease.) When humankind realised the consequences of going their own way, they found they were separated from God and that there was no way back. But God promised them he would provide a way for his creation to turn back and be reconciled to him. The Old Testament is the story of God using men and women to bring about his purpose, culminating in the New Testament and the birth of Jesus and a new covenant.

Who is Jesus? In the Old Testament times, the Jews covered the ark of the covenant with blood from a sacrificed animal to “cover” their sins. The Jews knew that spreading blood about didn’t change them as people; it didn’t really do anything about their sin. What they were doing was putting their trust in a time in the future when God would provide a perfect sacrifice, one that would be performed once and for all, and would destroy sin forever.

The perfect sacrifice was Jesus. God, to save his people, became one of them - he was still God but limited to a human body. He was a perfect human being. Like all humans he had emotions (yes, he probably even found girls attractive!) but those emotions were always appropriate to the situation. He treated people as valuable, and at the same time knew his own self-worth. He was the picture of what people were like before the fall.

To Christians, when Jesus died on the cross he was the perfect sacrifice for our sins (an understanding of Jewish sacrifice is helpful here). By accepting Jesus’ death and resurrection, we are reconciled with God.

When Christians talk about eternal life, we are not just talking about “Heaven”. We are talking about a new life that begins now and continues when we die. A crude allegory of life, death and Heaven would be like going from a very nice entree on to the magnificent main course.

The only way to accept this new life is by grace. You cannot repay God for dying for you, you have to take this new life as a gift. No hard work or clean living will ever win it for you. If Christians try to live life honestly, then it is because they are changing as people, not because they are buying a place in Heaven.

The Bible says that by the same power Christ was raised, so too are Christians being transformed daily. The sickness of their soul is being healed and they are day by day being reconciled to creation.

That is the claim of Christianity. If you take away Jesus’ sacrifice, there is nothing to the faith - nothing has changed. If Jesus did not rise after his crucifixion, he was defeated by our sin. If you want to “disprove” Christianity, you have to

understand why the resurrection is central to it. It may be argued that this is my belief, and not the belief of all Christians - many accept Jesus as a good teacher or a prophet, or even as a symbolic and not historic person. In the same way the Skeptic’s committee may have to point back to the organisation’s written aims to stress what is and isn’t there to avoid entering areas which are not covered by those aims (as happened at a recent public function in Sydney), I would like to point out what the Bible says of Jesus and his resurrection. The Apostle Paul in 1 Corinthians 15:17-19 says, “And if Christ has not been raised, then your faith is a delusion and you are lost in your sins. It would also mean that the believers in Christ who have died are lost. If our hope in Christ is good for this life only and no more, then we deserve more pity than anyone else in all the world.”

Over and over again the New Testament states that Jesus is the only way to God. Anyone who doesn’t agree isn’t a Christian by the Bible’s standards - even those who have been sitting in church each Sunday for the past fifty years. Sitting in a church doesn’t make you a Christian any more than sitting in a garage makes you a car.

Phil Shannon mentions that not all Christians think the resurrection is important. In my opinion, those in this “school” are people who in their sincere desire to win people to church life have tried to make the Bible acceptable to intellectuals by taking out the supernatural. To them, the supernatural is only for the ignorant.

But what are they winning people to? If the Bible then becomes a book about how to be “nice” and get on with people, why should anyone listen to the church? My mother has some very good ideas on how to be nice and get along with people - her views are just as relevant as any organisation’s. What authority does the church have then?

Unfortunately, in trying to make the New Testament symbolic, these people have to go through more history and fact bending (not to mention Bible bending) than the creationists to make their theories fit. Get hold of books by writers explaining the New Testament symbolically, then compare these with what the Bible and historians say. Phil Shannon’s letter begins with an apology and then does the same thing for which he apologised; ie., quoting theory as fact.

For instance, he says “It is only possible to say that some theories fit the available facts better than others ... only after Jesus’ death did his followers turn him into a divine being.”

As I tried to explain in my first letter, Christian and non-Christian scholars have been arguing this one a

long time, and neither has been able to prove the other wrong.

If your point of view is that resurrections never happen any place, any time, under any circumstances then there are no grounds on which to discuss the matter. A theory which denies resurrection is going to fit any facts you have. In the same way, Christians can be accused of blindly stating that the resurrection explanation fits the facts better simply because they believe in it.

What I am saying is that in order for non-Christian skeptics to examine the claims clearly, they are going to have to open themselves to the possibility of resurrection, and Christian sceptics in order to argue clearly are going to have to regard the possibility of a non-supernatural explanation of events. I am not saying that either side has to compromise what they believe - all I am saying is for logical argument to begin, either side has to open itself to the opposing possibility. Otherwise, any “fact” that comes along will be immediately moulded to fit our belief or excluded a priori because it doesn’t fit our theory.

What most of us are guilty of, most of the time, is reading works only by those who have the same beliefs as ourselves. This makes us very well versed in our own arguments, without ever testing how strong these arguments are.

Saying Jesus’ disciples turned him into a divine being after his death is as much a statement of belief as saying he was a divine being from the beginning. The basis for each belief should be argued better than simply stating them as facts.

Phil goes on to say “Evidence can be adduced for views of Jesus as both militant Messiah or meek sufferer, but such evidence cannot amount to proof because not all the necessary evidence will ever be in. Most of it is lost because Jesus’ contemporary followers were expecting an imminent Kingdom of God on earth so didn’t record much or do things like plant trees or crops.”

What does this mean? How does he explain the profuse writings of Paul, the letters of the disciples to early Christians, and other letters to Christians not included in the New Testament? What does the argument mean? If Jesus’ contemporary followers were not planting trees or crops (was this true of all followers or particular sects?) doesn’t this show they believed Jesus to be divine? You don’t wait around for a human Messiah to come back.

What evidence is Phil Shannon waiting to come in? We don’t have everything in our hands that was written about Julius Caesar, but what we have we can discuss, and what we don’t have, we can’t discuss. Arguing

from evidence that we don’t have is an argument from silence, and saying we can’t argue because “not all the evidence is in” is avoiding the issue. If we’re going to sit around waiting for someone to dig up evidence that suits our argument better, why are we discussing this now?

Let’s discuss and argue, and from an informed background, but let’s not state theories as facts.



Mechanistic or Moralistic?

Dear Sir

In response to Barry Williams’ invitation in Vol 9 No 3 to use the pages of *the Skeptic* as a forum for debate, I would like to submit the following.

As a new reader of *the Skeptic* (only Vol 9, Nos 1, 2, 3) I have become intrigued by what seems to be a fundamental inconsistency in the thinking of many writers for this publication. The inconsistency is this: many writers seem to align themselves with a mechanistic, materialistic view of the universe while at the same time their writings indicate that they hold moral positions (i.e. some things are seen to be good or bad) and furthermore there is often the implication that they regard life as having some meaning or purpose. It seems to me that there is a contradiction here, an attempt to have a foot in opposing camps. Is an atom of hydrogen or carbon or oxygen capable of making moral choices? If that is thought to be so, let’s see the evidence. Does the combining of atoms into complex forms, such as in human beings, somehow generate an innate moral framework that the individual atoms didn’t have? Again, if it is believed so, where is the scientific evidence for it? Certainly people have moral views. But the mere possession of a moral viewpoint tells us nothing of its validity and universal applicability. There are many moral positions and so, for the materialist, one position is surely as appropriate or inappropriate as another. After all, what is “good” or “bad” to a vibrating collection of chemicals? Must not a consistent materialist profess that morality is an entirely arbitrary illusion and so adopt an amoral view of life? To talk about whether something is good or bad should be abandoned as it is useless and misleading.

The writers of the articles indicate that they think there is some good in people knowing the truth, as

they understand it. But surely, if there is no such thing as “good” anyway, to believe truth or deception is neither here nor there. They seem set on a pointless, illusory course that denies the initial purpose for writing, i.e., to expose the illusory.

Tied in with this is the implied purpose and meaningfulness of life that is evidenced in many articles. But again, what meaning or purpose can be attributed to life by the consistent materialist? Phillip Adams has said, “I knew intuitively that the universe is completely senseless, meaningless - that there is no reason to it...”. This is being consistent. What ultimate meaning is there to a bunch of chemicals - no matter how complex they become?

Yet the articles, even by the mere fact that they have been written, imply that the authors see some purpose in living. Perhaps they live to be Skeptics or to do science, but in a meaningless, materialist universe - so what? Whether scepticism or astrology or even the cessation of all life occurs, what does it matter? The advocates of the genuinely mechanistic, materialist life-view must not sincerely believe their own position, for why should they bother to promote it? It is of no consequence either way. To use moral terms and imply any meaning or purpose in life, when they have no basis, is just as much a delusion and deception as many other things derided by skeptics.

In conclusion then, should not the honest, mechanistic, materialist sceptic be totally amoral with strong tendencies to anarchistic nihilism? I realise that to live a consistently amoral life is virtually impossible but still, what choice does such a sincere skeptic have?

I’m just glad I’m not one!

Graham Preston

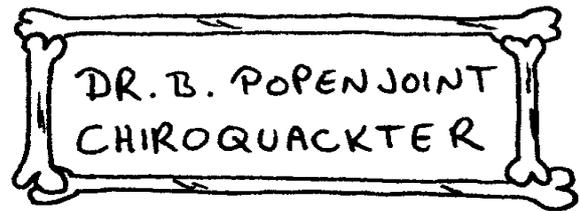


“Skeptical” and Chiropractic

Dear Sir

As a new recruit to the ranks of Skeptics, the receipt of the Autumn and Winter editions of *the Skeptic*, and of *Skeptical*, gave me some very interesting and instructive reading for which you have my thanks.

Although without any scientific training, I had treated with extreme scepticism all but two of the 36 quoted examples of pseudoscience and the paranormal discussed in *Skeptical*, so perhaps I could lay claim to some semblance of intelligence. I nearly claimed some commonsense until I remembered Einstein’s definition



(“A deposit of prejudice laid down before the age of 18.”).

Water divining was one subject which, while a cause of some doubt in my mind, had been accepted as strange but true after reading about several apparently well-documented examples quoted in newspaper articles over the years. After all, it is said that truth is stranger than fiction, but the article on page 76 convinced me of the error of my ways.

However, when I came to page 18, my natural skepticism really came to the fore. Was this a scientifically objective analysis of chiropractic from a disinterested, open-minded and unprejudiced source? It was so unlike the other articles which maintained an admirable scientific detachment that I was willing to bet a dollar to a donut that Victor Charles Albert Someone had MB.BS after his name.

Page 78 proved me wrong; the author wasn’t a Dr Someone, but a someone within the anonymity of a Committee - and from the deep south at that! However, I refuse to believe that all the members of that committee collectively held the pen while the article was written. Over the past five years, I have had occasion to rely on chiropractors to give me relief from the pain and discomfort arising from cervical sponylitis after the conventional medical wisdom of orthopaedic surgeons and physiotherapists had failed to give any relief at all. Certainly, I have needed more than the one “adjustment” which Dr Someone thinks should have produced a cure. But then, the chiropractors did not claim to be able to cure what even the orthopaedic surgeon had considered to be an incurable condition; they simply gave much appreciated relief.

What I now cannot understand is why doctors (orthodox type) have kept on treating me for hypertension and recurring calculi over a period of 15 years to date. It really should not be necessary continually to attend a doctor for the same “treatment” once the affected organ has been treated - to paraphrase the good doctor. Perhaps some chiropractors do make rather extravagant claims, but are they unique? Some orthodox medical practitioners have laid claim to far more than they have achieved, and in some rather unfortunate circumstances. Deep sleep therapy is just one that comes readily to mind,

but it is no reason to condemn all doctors as charlatans.

In any event, is it so wildly improbable that the nervous system has an effect on many kinds of illness not obviously connected directly to that system? One of the leading consulting physicians in Australia told me years ago that all my health problems were basically due to nervous tension which he classified as a characteristic trait not curable by any known medical treatment.

By all means let us question, and if necessary, attack the bogus claims of pseudoscience, but *Skeptics* should not be cynics, nor should their publications become the vehicle for the internecine arguments between competing professions.

G.D. Fairbank

Vol 10 No 1 - 1990

New Age Nonsense

Dear Sir

My dear wife recently became the subject of unsolicited attention from some United States purveyors of paranormal nonsense, based in Hackensack, New Jersey.

The first scam was an offer from Marie-Simone ("Europe's #1 Astrologer") to send "personal lucky numbers for lottery jackpots that can make you rich in within the next few years". ("You must win at least \$10,000 to \$100 000 in the next six months - or let me know and receive your money back- no questions asked.")

This sounds all very familiar, and of course it isn't necessary to go offshore to find a numbers scam; see Harry Edwards' "Money in Numbers", *the Skeptic*, Vol 9 No 1 (Autumn 1989), pp 6-11.

To get her personal lucky numbers, based on her date of birth, all Helen had to do was send off \$30 (Visa and Mastercard accepted).

Marie-Simone normally charges \$100 to \$500 to her celebrity clients but, as my wife's reading "came up on its own" (in the course of preparing a reading for an *unidentified* celebrity client), it was possible to

make this special offer.

However, while the reading allegedly came up mysteriously "on its own", accepting the offer involves filling in a "confirmation section", providing Marie-Simone with one's date of birth! With this vital information, Marie-Simone can provide a zodiac pendant and chain, and reveal the identity of my wife's celebrity twin. Neat, huh? The second offer came from the "World Crystal Power Center". For \$20 my wife can take possession of a precious 11 gram 4 million year old power quartz crystal which "radiates pure vibratory power from its natural Energy Point". Such is the confidence (or inside information possessed by the Center) that a Deed of Ownership has already been registered in her name.

I complained to the Queensland Consumer Affairs Bureau about these scams. Being based in another country, it turns out to be even more difficult than usual to curb the fraudulent excesses of the free market. The state Bureau doesn't know if anything can be done, but if anything can it will certainly have to be done by someone else, probably in Canberra, or by the FBI. *Caveat emptor*, it seems.

William Grey

Barry Williams responds: Dr Grey, who proved in 1987 that an intelligent sceptic can predict the future far more accurately than any 'psychic', will not be surprised to learn that he has hit the nail on the head once again. The correct agency to investigate this form of scam is indeed the FBI.

The unsolicited mail received by his wife is only part of a recent mailing, targeted at Australia, from a US organisation. While many of the 'offers' concerned New Age rubbish, others offered 'straight' merchandise, notably cameras and jewellery. Curiously, while the New Age products cost US\$20-30, the charges for the straight merchandise were between US\$10-15. There must be a lesson in there. Several of these cards were forwarded to the American Embassy in Canberra and we have been informed that the FBI has tracked down the perpetrator in New Jersey. As a result, the United States Attorney in that state has been requested to issue a civil 'cease and desist' order on the mailing house, and further information is being sought with the view to instituting criminal proceedings.



Chiropractic

Dear Sir

Why is it that so many otherwise sceptical individuals draw the line at alternative medicine? In particular chiropractic and acupuncture seem to be stumbling blocks for many sceptics who would have no hesitation in rejecting the claims of creation ‘scientists’, astrologers, clairvoyants and other miscellaneous paranormalists.

It has little to do with intelligence, scientific training or knowledge of medical sciences, for there are a considerable number of medical practitioners, i.e. persons holding MBBS or similar, who enthusiastically embrace some ‘alternative’ practice. There seem to be at least four contributing factors to this hiatus in some sceptics’ beliefs.

Firstly, there is a lack of knowledge of the subject. Regrettably, there has been little public criticism of alternative medicine in this country, and that which has taken place has not been made in any organised way. The National Council Against Health Fraud (USA) and the American Council of Science and Health badly need complementary bodies in Australia. Anybody who has read any of the writings of the NCAHF on chiropractic, for instance, would have little doubt that the practice has no acceptable scientific basis.

Secondly, there is widespread public and official acceptance of alternative medical practices. This has come about not only by a distrust of the medical profession (a distrust which is largely unwarranted) and of the pharmaceutical industry, but because of smart political activity on the part of alternative therapists. Consequently, we have acupuncture treatments as a Medicare benefit, and numerous other alternative therapies available as benefits on the “extras” tables of private health funds. With almost no opposing voice from orthodox medicine, alternative practices, chiropractic in particular, have gained respectability. This trend is probably irreversible.

Thirdly, the resort to personal experience. “Wait on, I know chiropractic/naturopathy works. The chiropractor/naturopath was the only person who could fix my bad back/hay fever/ ...”

While it is possible to excuse a non-Skeptic from such a statement, from a Skeptic (G.D. Fairbank, *the Skeptic*, Summer 1989) it is unacceptable. The same criteria which are used to assess the validity of

astrology, UFOs, ESP and the like must also be applied to alternative medicine. A person relying on subjective experience as verification of a practice, here chiropractic, is not using scientific method. Would Fairbank cease to be critical of water diviners if he had a “success” with a straightened coat hanger? Why cast objectivity aside when it comes to alternative medicine?

Perhaps Fairbank could look at Crelin’s article in *American Scientist* cited in *Skeptical* and produce a

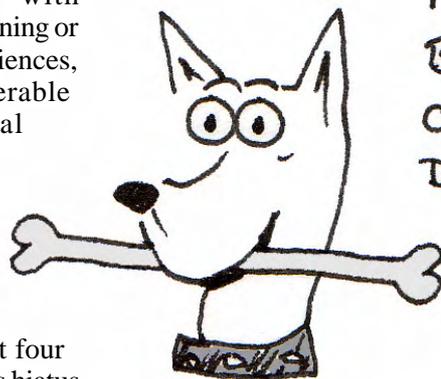
critique of it. If there is a flaw in that article, the scientific basis of chiropractic would be far less open to question.

On the other hand, maybe it wouldn’t. There are numerous excellent trials of chiropractic in reputable scientific journals which demonstrate its lack of efficacy.

Fourthly, plausibility. “... is it so wildly improbable that the nervous system has an effect on many kinds of illness not obviously connected directly to that system” to quote Fairbank. There is a well-established way to verify a plausible hypothesis - test it in an acceptable scientific fashion. When the tests are done, alternative medicine fails. It may not be improbable that the nervous system can act in the way Fairbank suggests, but it doesn’t act in the way chiropractors say it does. The more plausible the hypothesis the more likely it will be accepted without much question. Conversely, an implausible hypothesis will probably be quickly rejected (also sometimes without much question). So sceptics reject aromatherapy and homeopathy, but have a feeling of uneasiness about chiropractic.

On the matter of the authorship of the piece on chiropractic in *Skeptical*. A draft was written by one person and later amended by a committee. So numerous were the corrections, it was considered appropriate to attribute the statement to the committee. The Alternative Medicine Group of the Victorian Branch of Australian Skeptics consisted of about equal numbers of medical practitioners and persons who were not medical practitioners. All members, including the medical practitioners, were “disinterested, open-minded and unprejudiced”, even if from the “deepsouth”. Nor were they cynics, if by “cynic” is meant one who criticises without objective examination of the evidence.

**Graeme Watt (no MBBS)
alias Victor Charles Albert Someone**



I JUST LOVE
BEING A
CHIROPRACTOR'S
DOG!



Skeptics & Religion VIII

Dear Sir

I am not, formally, a Skeptic but have attended a couple of the local group's meetings during recent years, being told there, on enquiry, that the reason the Skeptics do not challenge religion is claims is because they are unverifiable, and the principal aim of the organisation is to investigate scientifically - with a \$20,000 carrot, or is it plum? inciting both the believers and the sceptics. Without being critical, the cash offer is certainly a tiny peanut to a hugely wealthy multi-incorporated institution like Christianity, for example, it being not worth that body exposing a bit of flank by reaching for the bait.

Receiving the magazine (*the Skeptic*) through membership elsewhere*, I note in Vol 9 No 4 pages of earnest prose prattling on about the claims of that theism. Quoting the Bible as proof of justification of faith! Two, whole costly pages given over to a silly sermon! This after over 200 years of objective Biblical criticism by scholars.

Reason only, not the claims of ignorance nor the aims of Skeptics, gives me the wish to suggest that it is only by studying those findings of scholars and considering them in relation to the findings of psychologists and sociologists (as Phil Shannon suggested) and also psychiatrists and psychotherapists and their like that the hypocritical and parasitical "religious" institutions will be sufficiently exposed, to the extent that civil powers will be forced to withdraw the unwarranted privileges the hypocrites now receive.

As "Christianity" is the fabrication most often used in "the West" to mislead and oppress the vulnerable (especially and deliberately children - a crime), I maintain that Professor G.A. Wells book "The Historical Evidence for Jesus" (Prometheus Books, Buffalo, N.Y., 1982) might well be taken as one standard reference as to the verifiable truth or otherwise about "Christian" claims.

As Archibald Robertson pointed out "there is not a theologian of repute today, outside the Catholic church, who accepts Christianity in the sense in which the churchmen of 100 years ago accepted it ..."

"If then the opinions of professional theologians on Biblical issues have altered in the last 100 years, it is for the cogent reason that the progress of knowledge on the evolution of life and man, on the history of religions, and on the nature and composition of the Bible itself makes it impossible for any man who allows himself to think on the subject to adhere to the old positions." ("Jesus: Myth or History?", Watts, London, 1946). And I add: nor any woman either.

Another great scholar and campaigner for truth, Joseph McCabe, writing of the supposed Jesus said: "For the overwhelming majority of people, Christians or non-Christians, his life and death are described in the four Gospels, and this account is lightly assumed in general and periodical, and even in much historical, literature ... *on no other point in modern culture is there so flagrant a discrepancy between scholarship and general literature and belief....* Christmas and Easter inspire year by year editorials which assume that only an eccentric few are sceptical. [Yet] it has been shown that on the ordinary canons of history they have no biographical value whatever, and it is further shown that not one of the moral sentiments they attribute to Jesus is novel or original." ("A Rationalist Encyclopaedia", Watts, London, 1950 - my emphasis). Dr Steven Mumford points out that the church is firstly a totalitarian and ruthless political institution and secondly an economic one.

"Religion" is merely the lying "front". Christianity is not a message of love and salvation (as is often unctuously and profitably contended) but is the fictional story of a bloody bribe, concocted to assuage the neurotic fears of some acutely superstitious and pathetically ignorant Jewish shamans.

May I take this opportunity to mercifully tell Belinda Wesley that her "ideas" are indeed "up the creek"? (Volume 9, No 3).

Dr Wells, in the above-mentioned book, writes in his opening 'statement of my thesis' (concluding the quotation with the final paragraph of the main text):

"... the earliest references to the historical Jesus are so vague that it is not necessary to hold that he ever existed; the rise of Christianity can, from the undoubtedly historical antecedents, be explained quite well without him; and reasons can be given to show why, from about AD 80 or 90, Christians began to suppose that he had lived in Palestine about fifty years earlier. The subtitle of this book indicates that it is addressed particularly to those who feel some skepticism towards the claims of Christianity and would welcome an account, written without religious commitment, of the kinds of documents the twenty-seven books of the New Testament are. "... Nearly all the authorities whose views I quote in this book are New Testament scholars; they are Christian theologians writing in standard Biblical commentaries or in theological journals. My purpose in quoting them is not to settle any issue by a mere appeal to their authority, but to show that many, indeed most of the propositions on which I build my case are not

laymen's aberrations, but are accepted - even widely accepted - by scholars who are within Christianity. Many such scholars have had the detachment and objectivity to study the books of the New Testament as historical documents, just as one would any records of a bygone age. In the few instances where I have been able to meet some of these theologians personally, I have learned to respect them not only as scholars but also as men. " ... I do not, of course, claim to have proved my views correct. If the evidence were such that one theory could be established to the exclusion of all others, the whole question would have been settled long ago. Whether my hypothesis is preferable to others will depend on whether it makes the best sense of the greatest number of details. " ... These books by Fau, Smith [W.B.] and Allegro do much to explain why serious students of the New Testament today regard the existence of Jesus as an unassailable fact. It is felt that, if the only arguments impugning Jesus' historicity are of the calibre these writers offer, then it is firmly enough established. Thus it is customary today to dismiss with amused contempt the suggestion that Jesus never existed. I have tried to show in this book that, whatever the final upshot of the debate may be, there is no ground for such a confident attitude."

Note that Dr Wells says the "best sense", not the most prejudices against the evidence.

The Skeptics (and friends) do not need to "demonstrate that ... belief in divine beings is ... spurious" (Vol 9, No 4) nor "produce ... evidence for the non-existence ... of divine beings". We need (merely?) to repeatedly point out that until those who claim, and receive, privileges on the basis of their contention that there is such evidence can scientifically prove so, then all such privileges are stopped - pronto. No more rates and tax exemptions, no more grants of land or monies to build, staff and stock schools, and no more "right" to indoctrinate trusting children. No more "right" to say prayers on public platforms, have reserved seats on civil and civic committees, and generally retard social progress and accumulate wealth beyond the power of any democratic government. The onus of proof is on the "believers" (actually, they are only muddled assenters in most cases) and the definitions of "faith", "delusion", "divine", "fact", "right", "religion", "scam" and "justice" must rest with reason.

Stan C.W. Stokes
Hon Sec Humanist Society of Qld

* Mr Stokes receives his copy of *the Skeptic* through a subscription by the Humanist Society of Queensland. On one other point, the cost of the pages we print has never been a criterion in deciding what goes in the magazine and what does not. - Ed.



Dear Sir

I should like to reply to Belinda Wesley's very well written and courteous letter (article?) in the last issue of *the Skeptic* (Vol 9 No 4). I may be wrong, but I get the impression that Belinda queries whether the "resurrection" is really a subject that comes within the range of the Skeptics' aims. I believe it does. A resurrection such as described in the Gospels is definitely a paranormal event, and so falls under the first and third aims, and it certainly comes within the scope of our fifth aim*.

Belinda gives a very good outline of Christian belief. But I would remind her that this belief is also "only a theory", and one which, unlike the average scientific theory, is supported by absolutely no acceptable evidence. It is of little use to quote the Bible as "evidence". That particular collection of writings by ancient Semitic priests and mystics contains so many factual errors (see, for example, the article on the Book of Daniel in the last issue) and contradictions (see "Self Contradictions of the Bible", by W.H. Burr, published by Prometheus Books) that it is quite unreliable as a source of information unless that information can be checked from other sources. Any scientific textbook that contained so many errors and inconsistencies would have been discarded long ago. It is true we cannot prove that the "Resurrection" never occurred. We can't prove that fire-eating dragons, the Yeti, Bigfoot and Bunyips don't exist. But in the absence of valid evidence, there is absolutely no reason why we should believe in them, either.

Exactly the same applies to the "Resurrection". But here there are very cogent reasons for doubting that it ever actually occurred.

Let us go back to the beginning: I have it on the authority of several Anglican clergymen that God is omnipotent and omniscient, and that this omniscience, by very definition, includes knowledge of all future events. God would therefore have known, when he created Mankind, that the vast majority - thousands of millions - would "break away from" him and so would have to be annihilated, or condemned to eternal torture (Matthew 25:41, 46), and that the only way (according to Christians) to remedy the situation so that a few of

them might be saved would be to eventually sacrifice himself. Yet, knowing this, he still went ahead, even though, being omnipotent, he could conceivably have easily arranged matters otherwise. This means that he planned the whole thing from the very beginning, and that would surely make him a fool or the most horrible of monsters, or both.

Then there is the question of punishment itself. Punishment is inflicted for one (or both) of two reasons: for vengeance, and as a deterrent to others. Since after the final judgement, when a few have been accepted into God's presence, there would be no-one left to deter, what would be the point of condemning thousands of millions of ordinary people to everlasting torture - punishment out of all proportion to the "sins" of the vast majority - unless sheer vengeance were the motive? As Winwood Reed put it in *The Martyrdom of Man* (1872): "[God] had long been angry with men because they were what he had made them".

There is also the quaint notion that justice is somehow served so long as someone is punished, even if that person is completely innocent and a volunteer. Justice does not necessarily imply punishment. It can be tempered with mercy, and the Old Testament has many references to God's willingness to forgive, centuries before the advent of Jesus (eg Lev.19:22; Deut.4:31; Psalm 103:3,4; Jer. 31 :34).

And was the penalty really borne by Jesus? According to Genesis, because of Adam's "sin" (a single act of disobedience to God), *all* humans, and all other living creatures, innocent though they were, were condemned to death. Whether this was spiritual as well as physical is not stated, but it is generally presumed so, hence ultimately complete annihilation. (No mention is made yet of eternal punishment - this came later, apparently as an afterthought.) So that to bear the penalty on our behalf, Jesus would have to be either completely annihilated, or sent to eternal torture, depending on your point of view. Yet, according to Christian teaching, he was restored to his full physical and spiritual powers after only a little more than two days. If a convicted criminal were sentenced to life imprisonment and then released after two days, there would be a public outcry. The penalty was, therefore, only a token; the punishment on our behalf was never really carried out in full - which is probably why, according to Christians, billions will still bum in hell for ever and ever, even though they say God is a God of Love!

Furthermore, to look at it from a different angle, one would think that, once the ransom was paid, things would revert to the original status quo and death would

now be abolished for everybody, regardless of belief. Isn't it remarkable that in all religions you have to *believe* in order to be saved? Yet if something is real, it exists whether you believe it or not! Why God would bother with such a charade when, being omnipotent, he could easily have done things in a far less complicated fashion is beyond imagination. In my view, the whole Christian dogma is an outrageous insult to both the intelligence and the morality of a Being capable of creating the whole vast and wonderful Universe, a dogma born of an attempt on the part of a section of the human species to shift the responsibility for and the consequences of its actions on to someone else.

And, Belinda, it is just not true that "without the resurrection Christianity is nothing". Its *moral* teaching is far superior to that of the Old Testament or the Koran, both of which encourage us to kill our opponents, including the women and children (eg Exodus32:27; Samuel 15:3; Koran 2:188, 190).

Alan Towsey

* For those unfamiliar with the aims, these are respectively: "To investigate claims of pseudoscience, paranormal and similarly anomalous phenomena from a responsible scientific point of view"; "To not accept explanations and hypotheses about paranormal occurrences without good evidence which directly or indirectly verifies such hypotheses"; and "To stimulate inquiry and the quest for truth wherever it leads". - Ed.



Dear Sir

The article by Patrick McBride "Can Religion Be Studied Scientifically" (Vol 9, No 3) is in error in asserting that no scientist has come up with a genuinely scientific hypothesis which could demonstrate the true nature of religious experience. The Princeton University psychologist Julian Jaynes has done just that in his book "The Origin of Consciousness in the Breakdown of the Bicameral Mind" (Houghton Miffling Publishing, 1976).

Jaynes' theory also uniquely provides a plausible, non-paranormal explanation for spiritualism, channelling, glossalalia and the extraordinary will of people to believe in these things. Skeptics would do well to examine it closely. On the other hand it undeniably has problems. An admirable survey of the pros and cons is given by Sydney University philosopher David Stove in the April 1989 issue of *Encounter*. Jaynes' primary concern is not religion but the consciousness of self. He believes that this has arisen

not on evolutionary timescales but within the last few thousand years, before which people were simply high-level automata. The high-level guiding mechanism keeping people on autopilot was the hallucinatory hearing of voices, of deceased authorities. The increase in size and mobility of society once civilisation-as-we-know-it began in the Fertile Crescent acted as one initiator of the ending of this phase. (A weakness of the theory is the absence of any more compelling breakdown mechanism.) Theistic religion and all its accoutrements is an attempt by our brains, still capable evolutionarily of hearing voices, to “get back in touch”

Jaynes brings to bear a good deal of evidence for this intriguing and testable theory from cultural history, psychiatry (notably schizophrenia) and neurophysiology. I do not propose to discuss this here. I will simply ask the reader to imagine what life would be like if Jaynes were right, and humanity was now in a transitional period: there would be religious fervour born of desperation in some parts, and a flourishing industry of contacters and their clients.

Jaynes has given us a completely new idea and certain evidence for it. In view of its importance, and in the light of *the Skeptic's* increasing involvement with testable aspects of religion, this deserves the deepest scrutiny.

Anthony Garrett



Legal Matters

Dear Sir

Two matters from Vol 9 No 3:

1. The report by Mark Plummer “A Psychic in Pcourt” (sorry, carried away by Raymond Channeller) is significant, inter alia, for its novelty value. And in Victoria! Fortunately the psychic pcharlatans (sorry ...) are not as thick on the ground (or above the neck) here as they are in his last country of abode and it is unusual - but gratifying - to read of one receiving justice in Australia. Fitzsimons' reported intention to “get a legal contract drawn up before every meeting” can only be good news for lawyers.

2. Of wider significance is an issue raised by Patrick McBride in “Can Religion be Studied Scientifically”, viz: the definition of religion. He asserts that religion is concerned with the transcendent, it is supernatural, but it does not require a personalised God.

It is an important question at law, because fiscal

advantages may flow to those who operate religions on the ground (so to speak).

The High Court of Australia in “The Church of the New Faith v The Commissioner for Pay-roll Tax” (1983) 57 AWR 785 held that for the purposes of the law the criteria of religion are twofold:

(i) belief in a supernatural Being, Thing or Principle; and

(ii) the acceptance of canons of conduct in order to give effect to that belief.

The Court held that upon the evidence adduced Scientology was a religion in Victoria (that state again!). In so holding the

High Court refused to adopt the different (what has been described as “subjectivist-functional”) definition formulated by the Supreme Court of the United States in the conscientious objection cases of “US v Seeger” (1965) 380 US 163 and “Welsh v US” (1970) 398 US 333. In the former case, the Court held that the only inquiry of the draft board should have been into “whether the beliefs professed by a registrant are sincerely held and whether they are, in his own scheme of things, religious”. In the latter case, it held that this (the Seeger) test was intended “to indicate that the central consideration in determining whether the registrant's beliefs are religious is whether these beliefs play the role of a religion and function as a religion in the registrant's life”.

The registrant in that case had actually crossed out the word “religious” on his application for exemption.

In an earlier case (“Torcaso v Watkins” [1961] 367 US 488) the Supreme Court had given a list of examples of beliefs intended by the court as religious which included secular humanism!

Whichever path one chooses, however, US or Australian, one thing seems clear: if legal definitions of religion are used, scientific (in the sense of objective) study of it, except as a psychological phenomenon, is impossible

N.R. Cowdery QC



Mechanistic or Moralistic?

Dear Sir

Graham Preston has articulated a common criticism of the scientific world view in his letter to *the Skeptic* (Summer 1989). He cannot understand how people with a materialistic or mechanistic view of the world can hold moral positions due to the lack of intrinsic moral properties in atoms and molecules. However, the world that we live in does not just consist of matter because evolution has produced plants and animals, including humans, with nervous systems and a brain which enables us to think, to communicate with other people, and to participate in a shared world of ideas. Among these ideas are moral values.

These have evolved along with language and the customs and traditions that are part and parcel of life in human communities. We are not bound to profess “that morality is an entirely arbitrary illusion”, or to accept that one position is as good as another because different positions have different consequences. Some are conducive to health and happiness, others to the horrors of Belsen and Biafra.

We can form critical preferences in favour of some values rather than others in the light of their internal consistency, their consequences and their feasibility. Critics of materialism usually go on to say that the resulting decisions have no “ultimate basis or justification”. To which we reply that we are totally unimpressed by the ‘non-materialistic’ authorities that are usually offered to support moral systems.

For example, peace, freedom and prosperity are worthy values but I see no point in trying to establish some ultimate justification for them.

However, I stand ready to debate with anyone who wants to promote war, slavery and poverty. As Bertrand Russell pointed out, most of the problems of public policy do not spring from disagreements on the basic objectives or ends of policy, but on the means, methods and procedures required to bring the ends into being. These are based on assumptions about the way the world works and this is where science and scepticism come into the picture. We would have a great deal more peace and prosperity if we could reduce the burden of prejudice and superstition about the way political, social and economic systems function. This is where the sceptical approach has a great deal to offer beyond parapsychology and suchlike where the *Skeptics* have chosen to concentrate their efforts. Some of us would like to expand this area of interest to include some of the more destructive religions

(including socialism). This expansion has been resisted so far and this is quite acceptable because if the sceptical worldview spreads then the whole swamp of superstition will tend to dry up, in addition to the parts that are currently on our agenda.

Rafe Champion



Dear Sir

Only at the most superficial level does a mechanistic view of existence lead to an “anarchistic and nihilistic” philosophy in which morals are irrelevant (and, although I am somewhat of an anarchist in attitude, for me that is a moral choice; and I am far from nihilistic).

Graham Preston (*Letters*, Vol 9 No 4) uses a tactic common among those whom I will call, for the sake of argument only, “moralists”, in that he reduces a complex issue to an oversimplified either/or choice. Another manifestation of this behaviour is the evangelist’s claim that “either Jesus was a madman or he was the Son of God, you can’t have it any other way”. Mr Preston’s letter presents the view that either morals relate to a transcendent existence or they are irrelevant; and if they are irrelevant, then *Skeptics*, who take a mechanistic view of the world, should deny morals (and therefore society). I therefore wish to present a couple of ways in which “moral” behaviour can be related to a mechanistic view of life. As a preface, I want it to be known that since this is a letter, not a dissertation, what I will say will be incomplete, but it will at least suggest directions in which discussion about morals can take.

Firstly, the evolutionary view of life offers one way to relate morals to our existence. This leads to the argument that any trait - either physical or behavioural - that tends to increase the chances of continuation of either an individual or a species is likely to continue.

Therefore, morals are a behavioural aspect of our species that help us to survive, both individually and collectively, by encouraging cooperative behaviour and discouraging behaviours that threaten the species.

For example, most of us are discouraged from murder by very strict taboos; therefore the expansion of the species is encouraged, and individuals who follow the behavioural code have a better chance of survival than those that don’t (on the whole).

At a completely personal and individual level, morals are part of the way we construct our definitions both of self and of the external world. A mechanistic view means that the meaning of life is entirely internal - i.e.

it is up to me to give my own life meaning - and a moral system is part of that effort, since it helps me relate to my fellow humans.

To relate this to sceptical activity, part of my personal 'world view' is that deception is wrong, since it demeans and devalues the victim. I am not attacking the beliefs of others, but I do deny them the right to systematically exploit their fellows for reasons of politics, power or money. My opposition to crystal merchants and faith healers is that they abuse the gullible to make money; my opposition to Creationists is that they suppress the quest for knowledge to maintain their power both in politics and the church. I am just as vehemently opposed to governments that have abused science for reasons of power - they gave the world the bomb. I do not regard science as "holy", nor knowledge as infallible; I just feel that both in terms of survival and the meaning of existence they are both preferable to ignorance and charlatanry.

Richard Chirgwin



Scientific method

Dear Sir

The Spring 1989 edition of *the Skeptic* featured several articles dealing with "scientific method" and that same topic was the subject of talks and discussion at the November meeting of Skeptics in North Sydney. However, the variety of opinions expressed leads to some confusion about the nature of science and scientific method. Here are a few examples:

the Skeptic articles deal with scientific method and investigations into pseudoscience, Tarot cards and religion. In his 'From the President' column, Barry Williams writes:

"Science is the way we attain knowledge. It involves experimentation, observation, publication and replication. It is in all these aspects, but especially the last two, which normally differentiate science from pseudoscience."

While this describes scientific method, the term replication fails to emphasise the importance of testing and falsifiability in distinguishing science from non-science or pseudoscience.

The process of testing and falsification is evident in

the investigation into Polarisers and Harmonisers, which concludes:

"[they] are pseudoscientific nonsense ... they are not science as they are not testable, or if they can be tested, prove to be worthless".

Following this Popperian approach to the demarcation of science from non-science it was surprising to hear Mel Dickson, a co-author of the above report, speak at the North Sydney meeting and refer to faith occupying a central position overlapping both science and religion. Unfortunately, time prevented him completing this argument, but it does appear to introduce complicating factors into scientific method.

In the investigation "Dealing with Tarot Cards and Scientific Method", Richard Walding concludes:

"As long as the need exists to find meaning in life beyond that which is forthcoming from a materialist philosophy, the search for the paranormal will go on..."

This statement infers that a materialist philosophy is an essential part of scientific method. This is an uncomfortably dogmatic assertion and it is matched on just the previous page where Richard Walding writes:

"McCusker wipes out materialism with the argument that Aspect and his co-workers claim their results wipe it out. That's what I call sweeping."

Here scientific method is involved in the old materialism versus idealism argument and interpretation of experiments in particle physics. At the November meeting in North Sydney, Tim Mendham spoke on the question of the scientific testing of religion. *the Skeptic* article "Can Religion be Studied Scientifically" by Patrick McBride reads in part (pages 42-3):

"Faith has no place in science ... for at the heart of modern science is the concept of falsification"

and, quoting Popper,

"Every genuine test of a theory is an attempt to falsify it. Testability is falsifiability".

He proceeds: .

“In Popperian terms, religion is non-scientific, and incapable of being studied scientifically ... philosophers too can deliberate on religion, but they are no closer to providing an unambiguous answer because they too are grounded in rationality ...”.

I question some parts of this argument. Religious claims are open to criticism, and to falsification as archaeologists and scholars throw new light on older civilisations and the antecedents of Christianity (presumably, this is the sort of information referred to by Tim Mendham). The fact that the Catholic Church now accepts scientific theories on the origin of the universe and the evolution of life on earth, and rejects the Old Testament as historical truth, is an example of the falsification of beliefs long held to be absolute truths.

Of course, religious fundamentalists can reject any argument by taking, in Kierkegaard’s words, the “leap of faith” or “leap into absurdity”. The above problems are addressed by William Bartley in his theory of Rational Critical Preference (in *Retreat to Commitment* and various papers), a development of Popper’s ‘critical preference’ as applied to competing scientific hypotheses. From the above examples, it seems obvious that scientific method can only be considered in relation to the philosophy of science. I suggest the most fruitful approach to the issues involved lies in the evolutionary theory of knowledge advocated by Popper and Campbell. It has created interest worldwide and was the subject of a conference at the University of Newcastle. The book, *Evolutionary Epistemology*, co-edited by Radnitzky and Bartley (Open Court, 1987), contains contributions from 12 leading philosophers and scientists on this important subject and should be of interest to all Skeptics.

Bern Gandy

Sincerity & Rationality

Dear Sir

Barry Williams, in *the Skeptic* Vol 9 No 4, rightly points out that Adolf Hitler was sincere, but he also implies that Hitler’s actions would have been less abhorrent had he been rational. Actually, Hitler was rational in many ways, and, had he been even more rational, he would perhaps have realised that killing all Jews and Negroes would not bring about the world of supermen

that he envisaged. But instead, he could have decided to kill all mentally and physically sick babies and later on to do away with all males and females with IQ less than 90. His actions would still be abhorrent.

The trouble with Barry’s argument is that it does not include Ethics, which is neither rational nor irrational. The philosopher Emanuel Kant has tried in vain to put Ethics on a rational basis. To arrive at an ethical view point, all one can do is to evaluate rationally the consequences of an action and decide whether these consequences are acceptable. But what is ethically acceptable remains a matter of individual taste.

Hans Weiler



Truth & Fact

Dear Sir

Some Skeptics seem to have trouble distinguishing between “theory” and “fact”. Mr Shannon in the Summer 89 issue is a notable offender as Ms Wesley in the same issue so aptly points out.

Other Skeptics like to claim that evolution is a fact - not a theory under the mistaken impression that in science “facts” are some sort of higher “truth” than “theories”. They seem to imagine that by converting evolution into a “fact” they have turned it into a sort of infallible religious dogma and hence closing off any further discussion.

However, their attempts to turn science into a dogmatic religion leave scientists unimpressed. In science, facts are mere datum points and theories are mere strings on which to hang them. Both are equally open to disproof and usually are in the normal progress of science. Yesterday’s facts and theories of science tend to become today’s religious superstition.

Keith Rex



Tarot & Probability

Dear Sir

I am pleased to read a report of the controversy generated by the McCuskers’ *Australian Physicist* article in your pages (Vol 9 No 3). It was unfortunate,

though understandable, that the editor of AP closed the dialogue with the McCuskers' intemperate reply to their critics (including myself). On the grounds that it is never too late to debate the truth, I set forth below an update of what I then wrote to *Australian Physicist*, and subsequently thrice to Professor McCusker. Only the third occasion, when I stated that I was considering writing the incident up and invited comments, elicited a reply. The reply made no answer to my detailed questions and stated only that the *scientific* path was to try the *experiment myself* - McCusker's emphasis. Since I was querying the experimental protocol, this response was, at the least, disingenuous. My further letter to Prof McCusker of June 3, 1989, making these points yet again, remains unanswered.

1. No physicist I know denies the conflict by 46 orders of magnitude between the quantum "standard model" and measurements of the cosmological constant pertaining to the expansion of the universe. But to say that "the quantum branch is in error by a factor of 10^{46} " is to omit the whole story. Scientists would not advocate quantum mechanics had it not many successes to its name: among them, prediction of the gyromagnetic ratio of the electron to better than 1 part in 10^8 . The charge of "scientism" would stick only if scientists denied there was any problem with the standard model; rather, it is viewed as a challenge.

2. The uncertainty principle does not prove Nature random as McCusker stated. A realistic, deterministic "hidden variable" model can always be proposed to underlie any theory that predicts probabilistically. Bell's work and Aspect's experiments simply confirm that such theories must be non-local: distant events affect nearby ones. This is remarkable, but that which the data proves must be accepted.

3. McCusker: "No certainly indivisible particle has yet been found." Nor will one ever be, for we can never guarantee indivisibility.

4. Following a talk in 1986, Prof McCusker strongly told me I should not criticise claims of human levitation without "trying it myself". Yet he declined to give me a demonstration in spite of a claim that he could; and would not concede that such a demonstration would be far more convincing to sceptics. This is a poor standard of logic.

5. I retain doubts about the experimental protocol (though I welcomed the further details given). Rather than spell these out, I suggested that he adopt instead the protocol in *Test Your ESP Potential* by James Randi (Dover, 1982). I doubt he could fault Randi's procedures; and his results would then be more readily

accepted by sceptics and others.

6. If McCusker viewed scientism as continuing belief in demonstrably incorrect science, he cannot consistently assert that Agent Orange and nuclear weapons are among its products, as he tried. These stem instead from correct science, misapplied. This is emotionalism, a "dirty" way of arguing.

7. McCusker quoted my phrase "the notorious paradoxes of probability theory" without mentioning that in the same article I stated how these had already been cleared up (*Australian Physicist*, 25, 137). Another dirty argument.

8. McCusker disregarded the argument that even if his anomalies were confirmed independently, they do not indicate anything wrong with probability theory. Rather they indicate that some important effect - if you will, the paranormal - has not been allowed for. Likewise, it is correct to sign a low probability to rain tomorrow in the outback, given that the evening was fair; subsequent rain would indicate not the incorrectness of this assignment, but absence, in the assignment, of the important information that a storm was due.

Readiness or otherwise to indulge in debate is often a valuable pointer to where the truth lies. I urge Professor McCusker once more to respond.

Anthony Garrett

Vol 10 No 2 - 1990

Water divining

Sir

Some reflections on the recent divining tests, as reported in Vol. 9 No. 4.

Ian Bryce is to be congratulated on his precise and effective account of the tests. The background, aims, procedure and verifications were clearly defined and the events comprehensively described.

I was moved to write these congratulations to him and *the Skeptic*, because, quite often in an article, a line of thought is marred by self-congratulatory or mocking asides, which distract attention from the point under discussion. But this report was plain, clear and emotionally neutral.

It was less satisfactory then, the next time I took up the magazine, to read about the impromptu tests.

Certainly, the need to highlight the extent of self-delusion is central.

But couldn't it have been achieved by publishing a copy of the terms agreed on by participants alongside the simple reportage of results? Or alternatively, these two, plus a listing of earlier claims made by individual diviners accompanied by any excuses given after the test?

I think tests involving deceptions with coins supposedly "concealed" or "found" tarnish our emphasis on the key importance of publicly demonstrable procedure and verification. What do other readers think?

As Ted Schultz remarks (*Skeptical Inquirer*, Summer 1989): "The true believers will most likely remain unconvinced....(but) there are many undecided people who are open to critical examinations of the paranormal, as long as they perceive that the studies are fairly and objectively carried out."

Can other diviners or practitioners of the paranormal be expected to participate in future if such unofficial tests are part of the denouement?

Let's keep the Ian Bryce approach as the model. But Very Well Done to all Skeptics who worked on the project.

J.C. Tynan



Free will

Sir

Something that Sir Jim R Wallaby did not mention in his article, EUTS (*the Skeptic* Vol. 10, No. 1), was the way in which mankind has bestowed names upon "things" that do not exist, eg. gods, souls, spirits (non-liquid), ghosts, pixies, goblins, phantoms, minds etc. Having been generated, these terms have become, almost, forms of energy and can cause much confusion, particularly to young people trying to learn the truths of human existence.

I must hasten to add that it is indisputable that "baronets" is a term given to things that DO exist; things both large and small, bless `em.

There is one oft-used term that puzzles me: free-will.

In the quest for truth, wherever it leads, let it be remembered that human beings are born without the "free-will" for birth and that they die without the "free-will" for death. Despite these facts, it is postulated

that human beings have the ability of "free-will" for all the thoughts and actions during their lives, between birth and death.

Is this the true state of affairs during life? Does such a thing as "free-will" exist? Perhaps some of our philosopher readers could advise.

John Fitzgerald

What do you mean, "The Phantom" doesn't exist? Ed.



Flood source?

Sir

In your description of the C.S.F. Summer School (*the Skeptic* Vol. 10, No. 1), everyone seems to have accepted the existence at some time of a flood, sorry, Flood.

About 40 years ago I wrote a book on humidity and heat used in industrial drying (H.M.S.O.-recognised as standard textbook). In this field relative humidity is of no value whatsoever; one has to deal with the weight of water dried off and the weight of the air used as the volume changes with temperature going in and coming out. To this end the book contains tables of weight of water vapour per pound of dry air calculated from wet and dry bulb, and of volume of one pound of air at different temperatures. (This was pre-metric.)

Out of curiosity I wondered what the depth of water would be if all the vapour in the atmosphere were condensed and spread evenly over the earth's surface, i.e. the depth of the flood waters. I do not intend to give this figure as I am well aware that it would be simply rejected by Bible fans without examination and I would lay myself open to blind abuse.

So, I offer the modus operandi and let anyone work it out for themselves. One takes a unit area on earth, imagines a vertical column of air above it to a reasonable height, calculates the water in it, condenses it and brings it down to earth, spreading it evenly on the unit area. The relevant data are -

- (1) Saturated air at 15 degrees C contains 75 grains of water vapour per pound of air;
- (2) The volume of one pound of air at 15 degrees C is 13.3 cu. ft.; and
- (3) A gallon of water weighs 10 pounds and has a volume of 0.16 cu. ft.. There are 7 000 grains in a

pound.

Assumptions have to be made, but if they are reasonable (eg. the atmosphere does not reach to the moon), they do not affect the general conclusion to be drawn from this exercise.

Dr H.H. Macey

Dr Macey has supplied an answer but feels it is a worthwhile exercise for people to try it for themselves. We agree, but being good Skeptics, we will have Dr Macey's answer checked by another expert or two. Eds.



Skeptic letters

Dear Sir

The published letters increase in interest with each issue of your magazine. There are a lot of confused people out there. Weird and wonderful are their thoughts. Perhaps a change of title would be appropriate: "The Laughing Skeptic". As for Sir Jim R. Wallaby, although his risible articles have caused me bodily pain in my side, I forgive him. Perhaps he, as a Knight Commander of the Royal Skeptical Realm, could inform us whether or not there is life after Gorbachev.

John Fitzgerald

We should know any time now. - Sir Jim



Chain letters

Sir

A few weeks ago, a number of graduate students in my department received a chain letter via the University of Melbourne's internal mail system. I am glad, even surprised, to say that every last one of us threw the letter in the (recycling) bin and treated it as the absurd joke that it is. It was no more than temporary entertainment and much fun was had over the next few days, at morning tea, blaming every minor mishap on our collective failure to send on the required

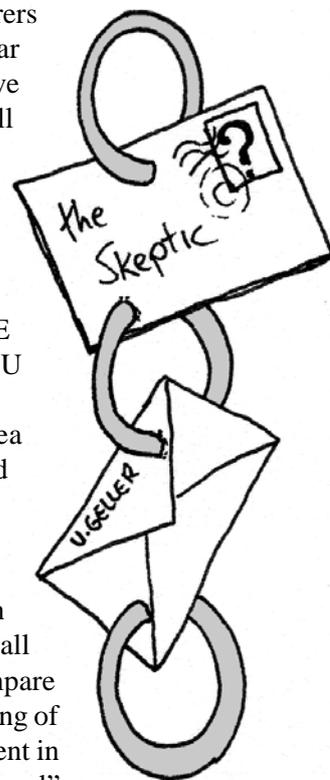
twenty (yes, twenty) copies of the letter.

And that (as the cliché goes) was the last of it, or so I thought, until I and several of my neighbours in North Carlton received another copy that was hand delivered by a student-type on a bicycle.

I am writing to warn readers of *the Skeptic* as I feel that this activity must be stopped as quickly as possible. If the twenty people who received these letters sent on twenty copies each, 400 people will receive a copy. And if these recipients in turn send on twenty copies, that makes for an incredible... where's my calculator...EIGHT THOUSAND COPIES, or about half a tree and lots of ozone and nitrous oxides released into the atmosphere from all that photocopying. Obviously this is a plot, either by the manufacturers of photocopiers to wear out old models so we have to buy new ones with all sorts of functions that we will never use, or by Australia Post trying to increase its revenue. But jokes aside, STOP KILLING THE TREES, YOU BASTARDS!

While I have no idea who delivered the second copy to my home, I do know who sent me the original copy, as each had a hand written address on it. It took us all of five minutes to compare these with the handwriting of our suspect, a PhD student in the department - a "hard" science for those who like such labels.

And here is my dilemma (you may be thinking of it yourself), how can someone, who has spent years working along sceptical lines in not believing/accepting something until presented with convincing proof, often multiple, independent proofs, accept such incredible drivel? Is it a case of one of those comparisons from *Yes Minister*, "I'm an individual, you're eccentric, he's around the twist"? Scientific training (whatever that is) is no protection against such thought. Witness the other extreme encountered in an undergraduate friend of mine: an excellent science student (one of the top in my year), but a born-again Christian, a firm defender of creationism and scoffer of evolution (too many of Duane's lectures I'm afraid).



“How can this be?” one of the Victorian committee asked me. “How can he not accept all the geological and paleontological evidence?”

“Easy,” I replied, “he’s never had to confront it. Since his late high school years (when he was born again, incidentally), all he has studied is pure and applied mathematics, physics and chemistry. Nothing in vector and matrix manipulations supports evolution, does it?”

So, can some reader please explain what I see as the incredible mental contortions that one must go through in order to hold both advanced knowledge and seeming drivel and is there anything that can/should be done about it?

Simon Saubern



Mechanistic or Moralistic II

Sir

The responses by Rafe Champion and Richard Chirgwin to my letter headed “Mechanistic or Moralistic” (Summer, 1989), were interesting but disappointing. I don’t think they really answered my original criticisms of skeptics who are mechanistic materialists: that criticism being, mechanistic materialists are being inconsistent if they make any moral judgement or if they infer any meaning to life. Skeptics are exhorted to think rationally and not to simply believe (*Barry Williams - From the President - Autumn 1990*). What do we then say to the person who thinks, “I don’t want to work but I do want to live comfortably. Therefore I’ll get a gun and steal money?” Now such a thing is quite rational. If the person is very judicious in his use of the gun he can get quite a lot of money and so live comfortably without having to work, as such. (Maybe we feel that using a gun is rather clumsy, so we could substitute a computer or some other means of committing white collar crime.)

Many, perhaps most of us, who read *the Skeptic* may not like this man’s thinking (perhaps because we are afraid that it may be our money which is stolen), but like it or not, it is still rational thinking. What argument can we pick with such a person from a purely mechanical materialistic standpoint?

If this person confronted us personally and tried to take our money we could say we didn’t want to give it to him, and, if we were quick with a gun ourselves we could perhaps stop him. But if we tried to stop his

argument by purely rational argument, what could we say? If we say that we don’t want him to take our money - he could say that he did want to take it. We could say that we thought it was wrong/bad for him to take it - he could say it was right/good for him to take it. We could say it might harm our survival prospects - he could say it might enhance his. If he accosted someone else with his gun, we would have even less of a basis for denying him his right to do so. After all, why should we impose our morality on others?

In Richard Chirgwin’s letter he says that my arguments are only superficial and he briefly tries to show how moral behaviour can be related to a mechanistic view of life. He starts from the premise that “...any trait ... that tends to increase the chance of continuation of either an individual or a species is likely to continue.” The implication of this statement, combined with his following argument, is that there is some good or some value in survival. But from where does he get this notion? Even if he does believe there is some innate quality in living matter that ‘wants’ it to survive (scientific proof of this I’d be interested to see), this still says nothing about whether survival is ‘good’.

I’m not suggesting that Richard Chirgwin or any other mechanistic materialist doesn’t have the right to invent any personal moral position they want. But what I find hard to understand is that any skeptical mechanistic materialists are willing to express their views about what they think is good and bad publicly. Richard says that part of his world view is that deception is wrong. If that is what he chooses to believe, fair enough.

However, he then says that he doesn’t attack the beliefs of others, but he does deny them the right to systematically exploit their fellows. It must be asked why he thinks he has the right to do this. He personally may not like to see or experience exploitation and he may choose not to do it himself but on what grounds does he conclude that it is wrong for others to do it? Exploiters obviously think that exploitation is good - for them at least. Who has the right to establish which position is ‘right’? That is the question that I want mechanistic materialists to answer.

Rafe Champion indicates in his reference to Bertrand Russell that he thinks that the majority opinion can be used to establish right and wrong. But what an imprecise and fickle instrument public opinion is for establishing something as fundamental to life as right and wrong. A study of history shows this clearly enough. Besides, if we have to throw our lot in with majority opinion, where does that leave the individual’s convictions? If we are going to be consistent, we can’t

have it both ways -either we accept the majority opinion, or we stick by our own views. (It must be noted that surveys indicate that a large majority of Australians express some sort of a belief in God - does that make them correct because they are in a majority?)

It is on the basis of the above that I conclude that consistent mechanistic materialists must unavoidably adopt the public posture of amoral anarchists. One's personal moral views are irrelevant to everyone else's and any laws of society are an indefensible, baseless impediment. Hence, there is the need to be amoral and anarchistic beyond our own private world.

Then, to my assertion that life is meaningless for mechanistic materialists, Richard said "...it is up to me to give my own life meaning ..." Surely this is an admission that meaning is really something quite arbitrary since it is something each person invents for themselves. If meaning in life is self-manufactured, then one person's meaning is as good as another's, and in effect such meaning becomes rather meaningless.

When we take a hard-nosed mechanistic materialistic look at what a human life is - the unintentional coming together of bits of matter that happen to form a living thing for a brief period of time and which then die and revert to non-living matter - it is impossible to see any innate meanings to this. Any imposed meanings by one or more of these chance beings is simply that - an imposition and so can be safely ignored. Skeptical mechanistic materialists may not like to align themselves with nihilism but I don't see what other choice they have unless they wilfully turn their backs on reality as they claim to see it. Since skepticism is about bravely facing reality, whatever it may be, I don't think they will want to do that.

In writing these letters I simply want to challenge mechanistic materialists to face up to the reality of their chosen position. Skeptics are supposedly the enemies of hypocrisy yet I am amazed to see the apparent hypocrisy of those who adopt this stance. You can't say you believe this universe consists only of matter but then try to espouse moral positions. Neither can you try to imply any meaning or significance in a universe which is ultimately nothing but atoms.

Before criticising others, mechanistic materialists should get themselves sorted out in these areas. Then, when they do, they will realise that they cannot say anyone else is good or bad as it doesn't matter two hoots what anyone says anyway.

I think that very few, if any, people can live like that. Who of us is not constantly expressing moral judgements and who of us never has a sense of life

leading somewhere or of it serving some purpose?

Whether we like it or not, perhaps the existence of morality and sense of meaning are indicators that there is more to our universe than just matter.

Graham Preston

P.S. When Rafe Champion writes, 'However, the world we live in does not just consist of matter...', is he saying that there is a non-material aspect to our world? He himself goes on to finish that sentence with, 'evolution has produced plants and animals, including humans, with nervous systems and a brain that enables them to think, to communicate... etc.' What, in all that, is not 'just matter' to a mechanistic materialist? Perhaps he actually thinks we have a non-material mind? (But who of us doesn't really - after all, is it just the atoms in our brains conducting this correspondence?)

Richard Chirgwin responds:

The materialistic arguments I can pick against Mr Preston's armed robber are as follows:

- (i) What you do harms me;
 - (ii) What you do harms the society which we both inhabit;
 - (iii) What you do may ultimately harm you;
- and all three points can exist without recourse to a moral ideal external to humanity.

The priorities lie in a different order if stopping a robber from accosting someone else, but they are still there:

- (i) What you are doing harms society; and therefore
- (ii) What you do could ultimately harm me;
- (iii) What you do could ultimately harm yourself in the long term.

This is an imposition not just of an individual morality, but that of a whole society.

Neither does survival involve reference to an external (i.e. God-given) morals, as Mr Preston asserts. Since the mechanistic choices are existence (and therefore the possibilities of enjoyment, fulfillment and so on) and non-existence, it is self-evident that survival is worthwhile, since, without survival, the opportunity for fulfillment, etc. is denied.

I next take issue with the false dichotomy presented by Mr Preston: that we either accept majority opinion or we stick to our own views. We can do both, since morals are concerned with action, not thought. The issue of morality is defining the limits of behaviour in society in a way which ultimately benefits society. I say the world is flat; I kill those who say the world is round: no more than a materialistic view is needed to define the difference between these two attitudes, and

to permit one, while suppressing the other.

“Any imposed meaning by one or more... chance being is ... an imposition and so can be safely ignored,” Mr Preston asserts. I agree. I don’t have to accept the meaning of my life from any other or any group of others; however, if I choose to act contrary to society, I do so at my own risk. This applies regardless of the source of society’s morals. Godly moralists punished Galileo for contradicting them.

“You can’t say you believe this universe consists only of matter but then try to espouse moral positions,” says Mr Preston. Why not? If moral positions are the creations of thinking beings, subject to change by thinking beings, then the origin of the thinking beings is irrelevant. Like life, morals simply are; what they are is the important argument.

Finally, I never implied that my conclusions were inescapable. I simply wish to demonstrate that morals and sense of meaning do not inevitably imply a spiritual component to the universe; and that, since they exist, any individual is free to subscribe to, promote and, from time to time, change society’s morals.

Rafe Champion responds:

Mr Preston’s challenge to declare the source of our morals has some value in affording the opportunity to show how far we have come from the old days of strictly mechanistic and deterministic materialism. People who combine their skepticism with strict determinism do indeed have a problem to find room for moral principles and deliberate choices according to criteria of right and wrong (or even truth and falsehood). Fortunately, we no longer have to accept a strong form of determinism, which has been under attack from a thoroughly scientific and naturalistic perspective for fifty years by Karl Popper and from the American skeptic, Charles Pierce, before him. The non-deterministic worldview allows for the emergence and evolution of new forms of molecules, organisms, minds, language and cultures. Chaos theory is a development in this tradition of thought, and another example is Popper’s ‘three world theory’. He postulates the existence of a material ‘world 1’ of atoms and molecules, a subjective ‘world 2’ of personal consciousness (based on suitably advanced nervous systems) and a ‘world 3’ for the contents of thought, including scientific theories, moral and legal codes, systems of logic and mathematics, and also the realms of art, music and literature.

Many skeptics are likely to find this pluralism of ‘worlds’ almost as subversive as the superstitions of the paranormal but it offers a way to go beyond the debate between mechanistic materialists and spiritualists which Mr Preston apparently wants to pursue. The relevant books are Popper’s *Objective Knowledge: An Evolutionary Approach*, *The Open Universe: An Argument for Indeterminism* and *The Open Society and its Enemies* (Ch. 5, on nature, convention and morality).

Mr Preston has raised the old bogey that moral principles, without supernatural authority, are merely arbitrary. However, this is not the case because we can form critical preferences for various moral principles in the same way that we form critical preferences for scientific theories. We subject the options to critical appraisal. Surely the essence of skepticism, in science and morals alike, is to settle for critical preferences which can change in the light of new evidence and new arguments, instead of locking into positions of supposed certainty that are dignified by appeals to the supernatural.

Barry Williams pontificates:

A commonly expressed, and cogent, objection to the assertion that morality depends upon the existence of a deity and that a deity only commands that which is ‘good’, is that one needs independent knowledge of what is ‘good’ in order to know what the deity commands. From what source can one obtain this second opinion? Surely, unless one posits two equally infallible deities, then the only valid second source is one’s own mind, and if one is capable of making that judgement, then the deity becomes redundant (at least as far as morality is concerned).

The next problem to arise from the hypothesis of a deity handing down immutable moral laws is, from whence did the deity, who presumably is a thinking entity, derive its concept of morality? Is there an infinite hierarchy of deities, all passing down moral principles to the next level? That doesn’t appear to be very satisfactory. Then we must ask, does this hypothetical deity obey its own moral strictures? Surely it must do, as the arbiter of all that is moral must be incapable of acting immorally?

But then, take the case of the Judaeo/Christian deity, allegedly the author of the moral principle “Thou shalt not kill”. If the book of his doings is to be believed, this deity is responsible for the wholesale slaughter of innocent humans; creatures for whom the deity itself



is ultimately responsible. Is this a case of “do as I say, not as I do”? This does not strike me as being a very moral position. After all, surely the most moral posture one could assume would be to emulate the deeds of the being who invented morals?

Perhaps then, these J/C moral rules are the result of what humans *believed* their deity would wish them to obey. The fact that, in a tribal society in a harsh environment, these rules also made a lot of sense, may possibly have coloured the thinking of those who sought to interpret the wishes of their deity. But, if that is the case, are not these rules then made by human beings, on the assumption that the deity would approve? How do we know what rules the deity is trying to convey to us? Do we have any evidence that the deity has ever tried to tell us what the rules are? We are not born complete with an instruction manual. I realise that there are various books in which people *claim* that they have received the rules from the deity’s mouth (assuming deities have mouths), but how do we *know* that the people understood what the deity was telling them or that they then transcribed them accurately or, in fact, that they may not have been suffering from delusions? How, indeed, do we *know* that the people were not simply lying, possibly to secure their own place in a tribal hierarchy.

Now if we determine, as Mr Preston seems to, that moral principals without supernatural sanction are arbitrary, then surely all moral principles are equal arbitrary, in light of the lack of any evidence as to what moral principles the supernatural power espouses.

How then does this materially differ from the concept of rules that are made by human beings who assume that a deity does not exist? In many instances, the rules themselves are similar, if not identical. The only difference appears to be in the areas of the penalties which attach to disobedience of the rules and who might impose those penalties. It seems pretty clear to me that moral rules are the constructs of human brains. We know that we exist and we know that we have codes of morality. We have incontrovertible evidence that any deities exist. And, even if we accept that some deity does exist, what evidence do we have as to which, of the thousands of deities that have been worshipped by humans during our entire history, is the real one? It is futile to suggest that any particular deity *must* be the real one, on the basis that that deity demands a higher level of moral purity, for the very reasons I mentioned at the beginning. What it now comes down to is that some people believe that the moral code they adhere to has some sort of supernatural sanction. Other people do not. In this context, there is no logical way to determine which

case is *correct*, or in fact if there is such a thing as correct morality. That some humans believe that a supernatural entity approves of their codes and that other humans doubt that such an entity exists, seems to be entirely irrelevant to the concept of morality.

Perhaps my questions are naive and a good theologian could dispose of them in a trice. While I enjoy a theological argument as much as the next individual, I am not sure that any theological argument has ever solved anything. When boiled down to their fundamental elements, theological arguments take on the nature of the constant reiteration of opposing views revolving around some variation of the theme, “Is” - “Isn’t” - “Is” - “Isn’t”, ad infinitum.

This magazine has indulged in quite a bit of theology in recent issues and, as the new editor, may I say that I am heartily sick of typing in names like Nebuchadrezzar and Isaiah, neither of which flows from the fingers. Wouldn’t someone please write a letter defending astrology?

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Mechanistic or Moralistic III

Sir

The “Mechanistic, Moralistic” debate which has been conducted in recent issues of your magazine is (it seems to me) an extremely important one, and will I hope be permitted to carry on a little longer.

It would be useful at this point to introduce the concepts of absolutism/relativism into the debate. The common definition of an absolute is “an idea that is not modifiable by factors such as time, culture, individual psychology or circumstances; but which is perfect and unchangeable”. In a Godless universe, absolutes have little or no foundation. If we accept the above definition, then absolutes exist independently of man (seeing as they cannot be affected by anything we do). But if this is not the case then morality exists solely in man, and can indeed be altered by culture, individual psychology or circumstances. For if morality is truly relative and does not exist independently of man, then morality is whatever we want it to be.

The readers of this magazine would (I suspect) mostly be relativists and would logically agree with the last statement. It is precisely at this point however that Messrs Champion, Chirgwin, Williams et al run

into severe difficulties. In their replies to Mr Preston, they appear to have, (either explicitly or implicitly), declared that humanist morality is based around minimising human misery and maximising human happiness. It is a utilitarian ethic which, (in a variation of Christ's command to "do unto others as you would have them do to you"), basically says, "help others, because by doing so you'll probably end up helping yourself eventually". Now it occurs to me that, in the absence of moral absolutes, this is an eminently sensible formula for the majority to follow, for not to do so on a very wide scale would indeed rebound upon most of us at some stage. But does living one's life in this way make one more moral, (good), than someone who lives their life according to a different code? The answer would appear to be no. The humanistic ethic is one of many. Communists for example would claim to have their own morality and we should not forget Nietzsche's "will to power", among many others. Nietzschean "will to power" is light years away from "minimising human misery, maximising human happiness", but it is a distinct ethic which all can accept or reject. But what is the basis for this decision?

It can hardly be "I choose ethic A because it is more moral than the others" when one is a relativist. For to do so is to absolutise one's position. The only basis a relativist can use when choosing between the myriad ethical systems is to decide which works best for him. It may indeed turn out that the majority opt for the humanistic code, but this would have to be on purely utilitarian, not moral grounds. If another person chooses a completely antisocial ethic (which leads to say, drug-pushing), and can evade the law (entirely possible), and become rich, comfortable and happy (probable), in a relativist universe there is no moral basis for condemning (or even dissuading) such a person.

The humanist cannot stand up and say he is immoral because he violates the humanist code of ethics because the humanist cannot point to a moral law outside of mere opinion that underpins the universe and validates his particular code. His atheism has denied him that avenue. In the end he can only rely on his own opinion, and, in the absence of absolutes, one opinion is no more moral or immoral than another.

Hence, to be consistent with his creed, the atheist should refrain from absolutising his own code of ethics and refrain from moral condemnation of anyone who violates his particular code. All he can do is persuade people that his code has a higher utility value than other codes. While this may be true for the majority, it is not true for everyone. Many people eschew the humanistic code and "get away with it". This is a brute fact of life. Atheistic humanists cannot have their cake and eat it too. The universe is either Godless and moral absolutes do not exist, or moral absolutes do exist and there is a God in the universe.

It is appropriate to conclude this rather long letter with the words of Alan Bloom, author of *The Closing of the American Mind*. He speaks indirectly of the tendency to try to kill God with the minimum of bloodshed; "Secularisation is the wonderful mechanism by which religion becomes non-religion

Marxism is secularised Christianity, so is democracy, so is utopianism, so are human rights. Everything connected with valuing must come from religion...Dogmatic atheism culminates in the paradoxical conclusion that religion is the only thing that counts".

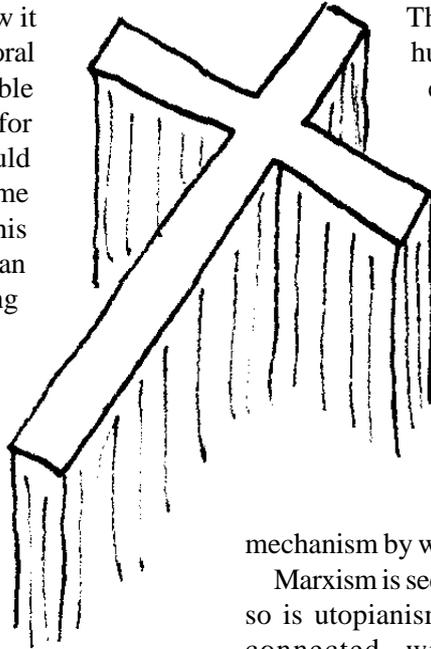
In truth, atheistic humanism is a prodigal son of Christianity

David Quinn
Coorparoo QLD

Rafe Champion responds:

The most appropriate response to Mr Quinn is probably located in the pontification of Barry Williams at the end of the last (Winter 1990) *Skeptic*. This points out that attempts to derive morals from some supernatural deity have only led to endless debate about the nature or existence of the deity. This is completely unhelpful because it distracts from the real issues, namely problems on earth and the moral principles and practices that are required to solve them. Equally unhelpful is the discourse of philosophers on the 'nature of the Good' and the meaning of terms such as 'right' and 'justice'.

I am prepared to stand with Mr Quinn as an absolutist, but my absolutism is very different from his. It is not based on God and it is not especially



concerned with values. It is concerned with truth, namely the correspondence theory of truth that was rehabilitated this century by Alfred Tarski. According to this theory, a statement is true (absolutely) if it corresponds to the facts. This kind of truth is not handed down by deities or any other kind of authority. It is not a single thing and it is not the end point of an investigation. It is a regulative standard for any debate that involves facts.

Turning now to Mr Quinn's critique of humanistic morality and the problem of standing up for the humanitarian standards against communists and those who follow Nietzsche's 'will to power'. Two points need to be made here. First, practically every moral and political code is based on a theory about the way the world works and it is justified by assumptions about the benefits which will result from putting the ideal in place. Second, we have the benefit of some thousands of years of conscious and unconscious experiments in this field.

Those who want to pursue peace, freedom and prosperity can identify many ways that these aims are undermined, and we can do this without recourse to deities. No doubt there will always be some people who prefer war, slavery and poverty, so we have to hope that they can be kept under control by people of good will. It is unlikely that they will be restrained by invoking a (possibly nonexistent) deity, or absolute moral values based on that deity.

Richard Chirgwin responds:

Oh dear, I had hoped to be free for other arguments, but this debate looks like dragging on longer than the Crusades.

I'm not as convinced as Mr Quinn that I have run into any more 'severe difficulties' than do religious moralists, since the history of religious moralism has a history of the same sort of relativism as has humanistic moralism: the church has a record of modifying its moral stands to cope with changes in society.

This undermines the dichotomy that is the cornerstone of the religious moralist, that you either have a God with absolute morals, or no God and no source of morals; since, even with a God there, Christian morals have changed over the years. Further, the morality preached by Christ has required commentary and interpretation ever since, from the letters of St Paul through to the present day. Is God so limited as to supply a partial moral system? For if not imperfect, then the moral systems preached by the church is at least incomplete.

But what is the purpose of a moral system anyway,

even within the church? According to Christian doctrine, morals have nothing to do with salvation: following God's law has been insufficient for a reconciliation with God since the time of Christ. Christians' own religious morals, many of them invented by the church or extrapolated from existing writings, have developed along socially utilitarian lines. They developed, in other words, to protect individuals and aid in creating a society that fosters Christian ideals (in this, Christianity is unique, being the only religion that denies the possibility of salvation through observance).

And Mr Quinn's problem of 'getting away with it' is insoluble in any moral system. For those who get away with it, religious morality can only offer the prospect of punishment in the afterlife.

Neither are the humanistic concerns sufficiently answered by religious morals, because to subscribe to a religious viewpoint in the first place requires an individual's choice. Are Messrs Quinn, Preston et al saying that all those who doubt or question the existence of a god should immediately become anarchistic, fornicating, murdering drug addicts?

This takes us back to the beginning of the debate. It kicked off with criticism of sceptics on this basis: that we have no right to criticise or expose charlatans, since we cannot subscribe to or promote a humanistic moral system without being hypocritical.

How come? If mankind makes the moral system by (for want of a better term) social contract, then surely mankind has the right to enforcement or promotion of that moral system within its parameters. It is neither hypocrisy, ignorance or sophistry to say that "human society has, as a whole, decided that murder is a wrong, and therefore each person has a right to prevent and condemn murder".

There is even precedent for humanistic morals in the Bible: Christ acknowledged secular authority by his command to 'render unto Caesar'. Even though Caesar's heirs are now elected rather than born, the principle remains that the judges and enforcers of social morality belong to society.

Hypocrisy may occur if we tried, unilaterally and without the blessing of society, to impose our moral system on others. But, even in the Skeptics' exposes of charlatans and rip-off merchants, the organisation is not imposing its morals. The aim is to present all the facts to people so that they can base their own decisions on lasting reason rather than passing emotion.

Unfortunately I'll have to cut this tome short; of course the debate has gone on since before Christ and won't end while mankind survives. I'm now going to spend a few weeks thinking about football - where

a coded system of rules, invented completely by mankind, is enforced without reference to God.

Barry Williams responds:

I do not believe that my previous response made any statement, either explicit or implicit, about humanist ethics. My purpose was not to defend any system of ethics, but to challenge those who posit an externally (to humanity) imposed code of ethics, to rationally defend their position.

Mr Quinn raises the concepts of absolutism/relativism, as though these concepts are necessarily mutually exclusive. Clearly, if we study physics, this is not the case in the material world. There is a vast body of experimental and theoretical evidence that we live in a relativistic universe. This universe also contains absolutes. The speed of light, zero Kelvin and various conservation laws are, to the best of our current knowledge, absolutes. They certainly meet the requirements of Mr Quinn's definition and of course apply equally, and are as important, whether there is a God or not. This is not to say that our understanding of these phenomena is perfect, nor that it ever will be, but all the available evidence does suggest that our current state of knowledge is somewhere in the same paddock with the truth. Science provides us with a mechanism by which we can refine our knowledge of the material world and enable to better explain how things work.

With moral absolutes, no such mechanism exists. It is all very well for Mr Quinn, or anyone else, to assert that moral absolutes exist but he offers no evidence to support his assertion, so there is no objective way that we can determine whether or not they do exist, or, if they do, what they are. Every thought we have about morality is coloured by our own, human, experience. We are not born with some set of moral imperatives imprinted in our brains. Nor are we born as Christians, Buddhists, Moslems or anything else; we are indoctrinated with these religious ideas as we grow up, and, presumably in the process, we learn about the "moral absolutes" accepted within those faiths.

This learning, however, comes from human teachers, not from divine instruction. It is not inconceivable that some sort of evidence for moral absolutes could exist. For instance, there could perhaps be some case made for moral absolutes if every individual subscribed to some single precept (although, in this case, it could equally be argued that this was in fact some evolutionary survival imperative), or if some precept was inscribed in flame in the sky using some method no-one could explain by natural laws, but such

phenomena do not exist. It is nothing more than arrogance (a very human attribute) to claim that our particular morality is absolute. It is an attribute displayed by many people, regardless of which corner of the religious arena they choose to inhabit, and is probably one of the pleasures of being human.

Therefore, every problem that Mr Quinn poses for the proponent of humanist ethics must apply equally to the follower of a religious ethic. In each case, it all depends upon human opinion and choice. There is just no objectively acceptable evidence in favour of externally imposed morality, only unsupported assertions. For the religious proponent to decide which moral postures are absolute, and to then claim that they are God-given, does not advance the debate by one iota. They are not providing evidence, they are seeking to avoid the issue.

So, although Mr Quinn may have exposed a problem of consistency in a humanist approach to what we chose to refer to as morality, my point is that religious believers have exactly the same problems, even though they might seek refuge in the ploy of attempting to put part of the question beyond debate. To counter this my, less than serious, advice to humanists is to say that their morality is consistent because of *grelb* (and of course, to refuse any invitations to define *grelb*). That should "level the playing field" as the current political jargon has it.

Alan Bloom's comment is just as profound if reversed. "Christianity (or Buddhism, or Islam) is mysticised democracy, or Marxism, or utopianism (or whatever)." Equally, I could say "In truth, Christianity (or Hinduism or Zoroastrianism) is just nervous (or self deluded) atheism".

Finally, and wearing my editorial hat, I agree with Richard Chirgwin that this debate is becoming repetitious and tedious. Unless some startling new evidence is adduced to breathe life into the debate, this correspondence is closed.



A virgin by any other name

Sir

Barry Williams may be "heartily sick" of theology (*the Skeptic* Volume, No 2), but some of us at least are very interested in Biblical exegesis.

Groves and Brown, in their excellent article "Major Blunders of Major Prophets" in the above mentioned issue, could perhaps have taken the quotation from

Isaiah 7:14 (p.9) “Behold, a virgin shall conceive and bear a son “ a little further, as this “prophecy” is quoted in Matthew 1:23 to support the account of the “virgin” birth of Jesus. The word for “virgin” there used (in Greek) is *parthenos*. Now, the author of Matthew, writing in Greek, was not translating directly from the Old Testament, but was quoting from the already existing Greek translation of the OT, known as the Septuagint (symbol LXX).

Unfortunately for him, a careful reading of the context indicates that this prophecy referred to then contemporary events, and indeed, Unger and White in “An Expository Dictionary of Biblical Words” (Nelson, 1985) state that it is here a reference to Isaiah’s own son (see 8:3).

Furthermore, the original Hebrew word translated as “virgin” (*parthenos* in LXX) is *almah*, which is defined in the standard “Hebrew and English Lexicon of the Old Testament” by Brown, Driver and Briggs as “young woman (ripe sexually; maid or newly married)”. (No mention of virginity.) Souter’s “Pocket Lexicon to the Greek New Testament”, under *parthenos*, says: “a maiden, a virgin”;... In Mt. i:23 *parthenos* is an inaccurate translation (due to LXX) of a Hebrew word in Isa. vii: 14 meaning a female adolescent, a young woman of marriageable age, whether married or not, rightly translated by Theodotion and Aquila *neanis*.” Liddell and Scott’s “Greek-English Lexicon” defines *neanis* as “a young woman, girl, maiden.”

And, indeed, the New English Bible says, in Isaiah 7:14: “...a young woman is with child...” (The Hebrew original does not have any part here of the verb “to be”, so one can insert either “is” or “will be”; and both Hebrew and Greek have “the”, not “a”, before *almah* and *parthenos*.)

The author of Matthew was fond of quoting Scripture to support his account of events, showing how it was “fulfilled” by them. Either he was not familiar with the original Hebrew (which would make one wonder who he was), or he deliberately used the mistranslation for his own ends, in line with that well known modern adage of journalism “never let the facts get in the way of a good story”.

Alan Towsey
Tahmoor NSW

PS: If the Skeptics Book Service has been set up “to allow the purchase of books at below retail price”, how is it that Barry Williams’ review of “The Creation Science Controversy” (Price) quotes the price as \$14.95, but the Book Service has it at \$17.95?

I confess! It was my error. The retail price of the book is \$19.95 BW.



Statistics

Sir

Dick Champion was, of course, very right to expose the nonsense both in Stack and Lester’s (1988) brief paper on sunsigns, wobbly statistics and the subsequent journalistic beat-up (Volume No 2).

But he was too kind, the chi-squared statistic used by the authors is notoriously prone to yield false positive results. Worse still, the format of the original paper makes it impossible to recalculate the data analysis appropriately.

The authors should have used Jeffrey’s test on a 2 x 2 table to obtain the posterior probability that Pisces had anything to do with suicidal ideation. My guess, from the published paper, is that the whole exercise would have collapsed if the sums had been done properly.

Readers should be warned against apparently scientific analyses which are really obsolete and misleading pretentiousness.

But, try telling this to the journalists who want a story. “Researchers discover nothing” is not a marketable headline.

(Prof) R. A.M.Gregson
Armidale NSW



Divining tests

Sir

Only recently have I had the pleasurable opportunity to read the Summer 89 account of the Australian Skeptics Divining Tests. But I must challenge the conclusion of Harry Edwards that “divining is a delusion”.

In fact, the tests demonstrate the universality of the unknown “power” that underlies both divining and parapsychology. It disappears whenever tests are conducted under controlled conditions by hard-nosed

skeptics. This common characteristic conclusively proves “its” existence.

More seriously, my compliments not only for your splendid efforts but for the delightful account of your tests.

Philip J. Klass
Washington D.C.



Divining tests - a response

Harry Edwards responds to J.Tynan’s letter (*the Skeptic* Vol 10 No 2) on the reporting of the unofficial water divining tests (Vol 9 No4).

J. Tynan’s critical comments in respect of our impromptu and unofficial divining tests seems to miss the point. These tests were not part of the official programme and they told us nothing about the ability of people to divine water under controlled conditions. They were not intended to. They do, however, tell us something about the mindset of some of those who believe themselves to have some unusual ability and about the ease with which people can delude themselves.

Adopting J.Tynan’s suggestion of reporting, sans humour, would reduce this journal to a compendium of statistical essays, which might appeal to some of our readers, while alienating others. Take for example Sir Jim R Wallaby’s article on chain letters (Vol 10 No 2). Written straight, it would be reduced from a rib-tickling satirical speculation to a dull exercise in simple multiplication. The use of “mocking aside”, (J.Tynan’s description) is an effective and acceptable method of emphasis that helps to lighten an otherwise straight account. In our report of the divining tests, we included both Ian Bryce’s excellent, serious and factual report of the official tests and my own report of the unofficial tests. Our feed-back suggests that most readers thought the two articles complimented each other.

The testing of the claims of those, whether they be charlatans or honestly self-deluded people, who believe that they have special abilities, may take many forms and we should not discard any of them that prove to be effective. In fact, it might be suggested that, if we restrict ourselves purely to “official” tests, then the only people who we will ever test are those who are self deluded. No charlatan, who is well aware of his own duplicity, will ever present himself for a fair and

objective test. Could James Randi have ever hoped to expose the dangerous activities of the so-called faith healers if he had restricted himself to “fair and objective”, controlled tests? Of course not.

This is not to suggest that we considered any of the people who presented themselves for testing at the divining tests to be in any way other than genuinely convinced that they could do what they claimed they could. Quite on the contrary, we found all of them to be people whose integrity we would not question. Nonetheless, despite our conducting tests that all parties, prior to the event, agreed to be fair, we did receive several excuses and complaints after the event. We have received no complaints about the unofficial tests. Sometimes it is a little difficult for non-scientific people to understand just what the results of scientific tests mean. Almost no-one would have been left in doubt as to the results of the unofficial tests.

J.Tynan asks, “can other diviners and practitioners of the paranormal be expected to participate in the future if such tests are part of the denouement?” In answer to that, we can only say that we have seen no diminution of the number of people some of those who failed the tests in October last.

Australian Skeptics and *the Skeptic* have a number of roles to fulfil. Among these roles is the scientific testing of anomalous claims, but equally we are required to promulgate information in a manner that people at large will understand. If we were a learned society, with a homogeneous, specialist audience, it would be quite proper to expect us to restrict ourselves to serious reporting, using only the language and jargon of that specialised field. That is not the case and we will continue to offer the mixture of approaches that, if our mail is any guide, our readers appear to want.



Misrepresentation?

Sir

In a recent review of skeptical errors in the *Arizona Skeptic* (Jan 1990, pp 3-5), *the Skeptic* author refers to the report of the Plimer-Gish debate in your publication as the ‘worst example’ of skeptical failure he has come across, full of errors and distortions. I was reminded of this, to a lesser degree, by Alex Ritchie’s report on the ‘CSF Summer School’. I showed it to a number of others who were at the sessions he describes. They agree that the most charitable explanation one can come up with is that the

commitment is so deep that, like the convinced astrologer, one sees what one wishes to see, regardless of reality.

Space forbids detailing the lot, but for instance, Ritchie in his point 4 (d) acknowledges that Wise believed that Australopithecines were not in the human line, yet later he writes that Wise stunned his audience by implying that Australopithecines “*somehow had to be accommodated in the human family, even if not in the direct line*”. This is simply not true.

Ritchie also misleads re his debate challenge - we not only asked for it to be held on national TV (live) but to be expanded in scope. Deathly silence followed - not a hint that this was ‘difficult to arrange’ -nothing but continued allegations that Snelling ‘refused to debate’. Meantime, we hereby withdraw our offer to debate after many months of continued unethical misrepresentations.

The worst was his (mis-)representation of the Hendry interruption issue. We were way over time even before Ritchie asked his question.

Having felt that we had been more than fair in allowing such ‘overtime’, I politely turned down further attempted comments in favour of a long-overdue ‘cuppa’.

Ritchie admits to having asked Hendry along, whether or not he primed him misleadingly, the fact is that Hendry later said he had mistakenly believed that Snelling’s views were being falsely represented as ‘mainstream’ geological opinion. It was in fact Hendry who first began to shout angrily; we have of course gladly accepted his later apology, because of the misunderstanding. Because of this eruption (to Dr Hendry’s credit, he specifically asked that the ladies in the audience be apologised to on his behalf), a volatile Scot in the audience (who later also apologised to Hendry) leaped up and roared threateningly at the one so rudely shouting. To his credit, Andrew Snelling kept his calm and tried to find out what had caused such uncharacteristic behaviour in his friend, hence the subsequent clarification. He in fact stood beside David Hendry explaining the misunderstanding to those who had gathered around. (Hardly ‘everlasting shame’!).

Contrary to the twisted ‘Ritchie report’, there was no forbidding of free speech, for those attending throughout, there was ample question/discussion time, which was utilised by other evolutionists acting with genuine intent and within the guidelines of courteous behaviour.

Dr Carl Wieland
Managing Director
Creation Science Foundation

Dr Alex Ritchie responds:

Dr Wieland complains that my report of the 1990 CSF Summer School (*the Skeptic* Vol 10 No 1 pp.9-12) was ‘misleading’ and ‘twisted’ - strong words. I reported it as I saw it. I withdraw nothing. If Carl Wieland saw it differently then that is his prerogative.

Wieland’s claim of ‘ample question/discussion time’ will ring hollow to anyone familiar with Creationist debating tactics. Andrew Snelling’s talk was 9.15-10.30am the only designated time in CSF’s daily programme for questions or discussion was at 9.30pm. Eleven hours is a long time to wait to ask a geologist a simple question on geology, in front of a different

audience! I admitted that I drew

to the attention of Dr

Andrew Snelling’s

PhD supervisor,

Dr David

Hendry, that

Snelling was

scheduled to talk

variously on “*How*

Old is Everything”,

“*why, as a Geologist, I believe in the World Wide Flood Of Noah*” and “*An Australian Case Study in Flood Geology*”. Having never heard his former student present a creationist version of geology, David Hendry was keen to attend. Wieland insults both David Hendry and myself in suggesting that I “*primed him misleadingly*”. David Hendry is familiar with geological dating methods outside my field of expertise and our research areas are poles apart. In fact, we have had no communication since the CSF meeting.

Wieland again misrepresents my challenge to Snelling to a public debate. It is clear and unequivocal. I first challenged Snelling to a public debate in the last two paragraphs of a letter to the *Sydney Morning Herald* published on 8/12/87, as follows:

“For more than 150 years geologists have realised that the Biblical Flood story doesn’t hold water as a scientific theory. Despite this, one of the leading members of the CSF, Dr Andrew Snelling BSc, PhD (Geology), not only believes it but has written several articles interpreting Australian geology in the light of Noah’s Flood.

As a geologist with more than 30 years experience collecting and studying fossils challenge Dr Snelling to a public debate in Sydney on the topic of ‘NOAH’S FLOOD - THE GEOLOGICAL EVIDENCE FOR AND

AGAINST.”

In a personal letter to Snelling (17/ 12/87) I drew his attention to the *SMH* public challenge and went on to say:

“I understand from recent issues of *Creation Prayer News* that you have travelled the length and breadth of Australia, in company with Gary Parker, lecturing on this very topic, to lay audiences. It should not therefore present any major problems for you to tackle the same topic against another geologist, even one who is a bit rusty like myself.

I look forward to your response. I am sure I can find the funds to cover your airfare from Brisbane to Sydney for such an occasion. I have received an encouraging number of letters from *SMH* readers asking me to let them know when (or if) such a debate takes place; some were even from creationists.”

Snelling replied (2/2/88) demanding conditions which would have negated the main object of the exercise - a debate on the geological origins of the Earth between two geologists - hardly, one would have thought, a very restricted topic.

“Nevertheless, even though we are extremely busy, we cannot be seen not to take up your challenge. However your terms are far from satisfactory. Your choice of topic is far too restrictive and assumes that the evolutionary interpretation of the geological evidence is valid. Thus we would insist that the whole question of evolutionary interpretation would have to be up for debate if Creation and Noah’s Flood were also on the agenda.”

He further requested more than one speaker on each side and for the debate to be televised nationally, live (or without editing). Apart from the fact that Andrew obviously needs someone to hold his hand in a debate, the final condition must strike anyone, who understands the workings of TV networks, as ludicrous.

In May 1990 I renewed my challenge. The Australian Museum Society (TAMS) invited me to give a lecture on a topic of my choice. I suggested instead a debate between myself and Dr Snelling on “*The Geological Evidence for and against Noah’s Flood*”, as a sure fire crowd puller. TAMS formally invited Dr Snelling (May 17th) to take part in such a debate, offered to pay his expenses for a visit to Sydney and gave him a wide choice of dates - the whole of

September and November 1990. In their invitation TAMS said:

“I understand that, as a qualified geologist, you are the main spokes man for the Creation Science Foundation on geological matters. I have informed also that you have written and lectured extensively on the subject of the geological evidence for Noah’s Flood and are, therefore, the ideal person to present, or defend, the case for Flood Geology.”

In his reply (June 1 4th), Dr Snelling claimed to have been misrepresented by me on the matter of a debate and repeated his demand for several speakers and for live national TV coverage before he would agree to such a debate! He accused both me and the “*organisation in whose publication he writes and with whom he is often publicly associated*” (*Australian Skeptics*) of “*an anti-creation obsession*” and of having “*consistently exhibited a disregard for ethics*”. After a lo more in the same vein, Snelling stated that “*my/our counter-offer has from this moment been withdrawn until such time as a willingness to conduct this whole matter of an ethical and gentlemanly levied has been consistently displayed.*”, Snelling hastily added that he was, not suggesting “*that Dr Ritchard himself has displayed these tactics in such debates,...*”

I am pleased to note that Dr Snelling absolves me from using unfair tactics in debate. This makes all the more puzzling the statement in Dr Wieland’s letter that “*Meantime we hereby withdraw our offer to debate after many months of continued unethical misrepresentations.*”

I have never challenged Dr Wieland to a debate on the geological aspects of Noah’s Flood - he is as unqualified to speak on things geological, as I am on matters medical. In my chapter “*Testimony of the Rocks, or Geology versus the ‘Flood’*” (*Confronting Creationism: Defending Darwin*, 1987) I presented my firmly held belief that the geological record stands on its own. Geology is mostly investigated by scientific disciplines far removed from, and quite independent of, those used in the biological sciences. The theory of evolution may be strongly supported by the fossil record of life preserved in rock but interpretation of the record of the rocks is not dependent on the theory of evolution. Fundamentalist creationists, such as Wieland and Snelling, always try to disguise this fact when they attack the geological sciences, using ‘evolution’ as a red herring to distract attention.

So, the question is quite simple. When will Dr Andrew Snelling B Sc, Ph D (Geology) stop hiding behind the coat-tails of his creationist collective?

I again challenge him to present and defend his geological interpretations of Noah's Flood in public. Although he is always willing to address such topics in front of uninformed, lay or school audiences, Dr Snelling is remarkably reluctant to present and defend such views in open debate against one of his geological peers. What is he afraid of? After all, the best way to avoid misrepresentations to present your own case.

I hesitate to suggest cowardice. A more charitable explanation may be that there is no geological evidence for Noah's Flood and that Dr Andrew Snelling BSc, PhD (Geology) knows it, in which case, why doesn't he come clean and admit it?

Editor's comment:

I am finally able to comment on the opinion expressed in the *Arizona Skeptic*, having at last seen a copy. The author of that opinion did indeed claim that our report of the Plimer/Gish debate was the "*worst example of skeptical failure*" he had come across. In this, he appeared to be unable to distinguish between his own interpretation of a tape made of the debate and an on-the-spot news report which summarised the debate. Our report did contain some minor errors, which have been acknowledged in previous issues.

As one of those who actually attended the debate, I disagree with the Arizona correspondent claims but perhaps one had to be sitting in the audience to savour the full flavour of what was said. Unlike such organisations as The Creation Science Foundation, neither Australian Skeptics, nor, as far as I am aware, any other sceptical group, has any "party line" to which all are expected to adhere, on pain of excommunication or worse. Skeptics, as our Letters column will attest, are free to have their own opinions and this magazine has published many dissenting views (including, incidentally, a number of letters from Dr Wieland).

In this context, and with reference to the red herring of unethical conduct, I should point out that, when Dr Wieland claimed that an article in *the Skeptic* misrepresented his organisation, our pages were made available for him to seek redress. That is because Australian Skeptic; is an ethical organisation.

I am sorry to say that The Creation Science Foundation, and its publication *Creation Ex Nihilo*, does not offer the same courtesy. On March 13th this year, I wrote Dr Wieland a letter for publication in CEN, in which I sought to bring to the attention of its readers some factual errors in a series of articles

which were critical of, among others, Australian Skeptics. To date, and despite lengthy correspondence between myself and Dr Wieland, he has refused to publish my letter. One is left to assume that the publishers of *Creation Ex Nihilo* have so little faith in the "faith" of their readers that they are fearful of exposing them to the truth. I will leave it to the readers of the *Skeptic* to reach their own conclusions about the relative ethics of the two organisations.

It should surprise no-one that creationist should seek to use, what they perceive to be, dissension within the ranks of their opponents to bolster their own case. As they have precisely no scientific evidence to support their claims, disagreements among their opponents are the only thing that they can use in defence of the indefensible. If any creationist did have any plausible case to put, in any of the areas in which he claims to have scientific expertise, then it is inconceivable, as Dr Ritchie has pointed out above, that he would refuse an opportunity to put it to a scientifically literate audience or in a debate with one of his peers. This is why creationist "scientists" place restrictions and limitations on any debate and why they seek to obfuscate the issue with spurious claims of "misrepresentation" and "unethical behaviour". They realise quite well that, in a head-to-head debate on any particular scientific subject, their pretensions will be exposed as being laughably inadequate. Far better to spout nonsense at children and uninformed adults, than to risk being exposed by those who understand the subject. We should expect to see more claims of "unethical" behaviour and "misrepresentation" as they seek to muddy the waters, thus protecting their puerile pseudo-science from any informed scrutiny.

As is the case with any organisation which knows THE TRUTH, the CSF clearly understands that the truth is far too dangerous a topic to be bandied about.



Change the focus

Sir

The critical attention directed towards the subjects of Creation "Science" and the various New Age practices by your publication is a matter of ongoing vexation to me.

In the United States, where the Creation push poses a greater threat to intellectual life than here, the subject is addressed perhaps more sparingly by *The Skeptical Inquirer* than locally by *the Skeptic*. Since Creation

“Science” is entirely devoid of intellectual content and has been soundly debunked scientifically, I find the prominence afforded the Creation/Evolution controversy by *the Skeptic* less than creditable. Likewise is your apparent preoccupation with the manifest nonsense of the New Age. It is agreed that these issues must be canvassed in the public arena but surely the journal should concern itself, chiefly, with attempts to determine the veracity or falsity of the most challenging claims.

In view of the demise of the MJ- 12 documents and the fact that the popular alien abduction stories can be readily explained by common psychological mechanisms, I would suggest that even the UFO question should take a back seat to such phenomena as the Out-of-Body phase of the Near Death Experience, the putative miracle cures of the more credible faith healers and other extraordinary occult claims which swamp the media.

I am well aware that seemingly compelling evidence can be adduced by the proponents of almost any paranormal phenomenon, but the sheer weight of well attested accounts of extrasensory / remote perception associated with NDEs compels rigorous investigation.

I contend that the aforementioned areas should be more actively targeted.

A. C. Brown
Brooklyn Park S.A.

Editors' comment:

There are a number of points to make about Mr Brown's complaint:

1. Creationism, the New Age and UFOs may well be dead, but they won't lie down. They also comprise a large proportion of the mythology of our age and should continue to be addressed.

2. What is published in *the Skeptic* is largely dependent upon what people are prepared to write. We have published articles on OBEs and faith healing and will do so again, if we receive them.

3. Australian Skeptics is not in the financial position to commission major investigations into the matters suggested by Mr Brown, but we will keep readers advised on any information that we get. Faith healing is very well covered in the book *The Faith Healers* by James Randi (Prometheus, 1987) and in the Student Essay Competition winner published in this issue Susan Blackmore's *Adventures of a Parapsychologist* (Prometheus, 1986) gives some interesting answers to OBEs.



Biology

Sir

Simon Saubern asks (*the Skeptic* Vol 10, No2) for an explanation of

“the incredible mental contortions....to hold both advanced knowledge and seeming drivel....”.

In the “lower animals” the more basic brains develop reflexes for survival, and then emotional responses (for survival?) as evolution proceeds. In the “more evolved” animals, especially those Dr Who calls “*quite my favourite species*”, the cerebral cortex is more highly developed and thought becomes complex. However the development of the cortex does not develop at the expense of the more basic emotion centres.

“Feeling before facts” is an important rule when trying to understand and relate to other people. How well do you think when you are blind with rage or madly in love?

So the young student is an excellent scientist, but a defender of creationism! Have you asked yourself what his emotional needs are? Are you listening clearly enough to detect what is closest to his heart? (Sorry, that should read “closest to his corticopontine and corticobulbar pathways”). Homo sapiens is not made of cortex alone!

Twin studies indicate that attitudes and opinions, as well as intelligence, have a genetic basis, although all of these things can be potentiated by education in a concerned, supportive environment.

So, Simon, next time you notice your brain works a little differently from others, don't indulge in self-righteous indignation. Remember, there, but for the grace of selective breeding, go I.

(Dr) Dora Mogensen
Loganholme QLD



Flood waters

Sir

Like Dr Macey (*the Skeptic* Volume, No 2), I too was curious about the depth of water produced if all the atmospheric vapour condensed. My answer was

12 feet; other answers are presumably printed elsewhere. It was most instructive to make some gross assumptions about the height of the atmosphere and most importantly, the average temperature. Engineers deserve grains, pounds, gallons and cubic feet but why give us Celsius data? What happened to Fahrenheit?

In February 1960, the *Bulletin of the American Meteorological Society* carried an article calculating the distribution of precipitable water vapour over the continental United States at an average of only 3/4 inch (p86).

In their book *The Genesis Flood*, creationists John Whitcombe and Henry Morris attempt to calculate the depth of flood waters from biblical data and end up with 17,000 feet (the height of Mt Ararat on which the Ark was said to have grounded) but “*unless uniformitarianism be presupposed it is not necessary to assume that antediluvian mountains were this high*” (p2). So another approach is needed. The flood rains lasted 40 days and were at maximum height by then. On the 150th day the waters began to decrease. They calculated that the waters receded at an average rate of 15 ft per day from the 150th to the 371st day, when the Earth was dry and Noah could leave the Ark. They agree that the level thus fell for 221 days at 15ft per day or a total of 3315ft. Even at very high temperatures, where the vapour content of air would be much higher, there seems no way you could get a figure like this by condensing the vapour canopy. All of this water “*returned from off the earth*” (Gen 8:3) back to the sky.

An overlooked problem is one of conservation of angular momentum. As this massive vapour canopy condensed down onto the surface, the rotational speed of the Earth would increase and shorten the daily period of rotation. In my calculation, each day would be four minutes shorter. That would be interesting - you would feel lighter. The whole exercise is a diversion from the real issue, but it's more fun.

**Richard Walding
Sheldon QLD**



Chain mail

Sir

I read with interest Simon Saubern's comments on chain letters (*the Skeptic* Vol 10 No2). It is fascinating how the highly educated are just as susceptible to

deception as everyone else. An example would be a creationist microbiology' lecturer I once had. Thanks to the genetic immutability of bacteria, their phylogeny isn't as simple and obvious as it is for higher forms of life, whose relationships are reasonably easy to trace. Hence my lecturer had found a niche to which evolution didn't seem to apply, and put us through something called “Adamsonian taxonomy”, which classifies organisms on the basis of arbitrary similarities, rather than their genetic relationships. This is a little better, though, than another friend who didn't do High School biology past year 10, so he wouldn't have to learn about evolution I can only guess what his beliefs might be now if he had actually been educated in the subject.

But anyway, re chain letters: I suspect that many people, rather than dreading the awful results of not passing on the letters, see them as a bit of harmless fun. I know that this was my attitude as a child. This son of a approach needs to be discouraged on two fronts. Firstly, that sending on the letters is a purposeless waste of resources (paper, postage etc.) and that, secondly, there are “believers” out there to whom it might be better not to provide such things. The thing that always confuses me when I receive chain letters, is that they always claim to have been around the world “x” number of times. How do the writers know? Does this mean that Saul What's his name in Venezuela eventually got a copy of his own letter, added the circumnavigation time and sent it off again?

**Kate Orman
Castle Hill NSW**

Here at Skeptics Central, we think that the chain letter is a money making scheme by Australia Post. Ed.



Thanks

Sir

Firstly I would like to thank you for selecting my entry as the winner of your “utilise some phrases from Ex Nihilo” competition. I'm not sure why you think I show such promise in the fields of advertising or politics but I am always open to lucrative offers.

Secondly, I think the new typeface is a considerable improvement over the old. Typefaces using serifs are easier to read, this being the principal reason for their popularity in printed media, where less than optimum

printing conditions apply. I'm also glad that you have it all the same size now - more than one unkind acquaintance has made the assertion that the requirement for the large type had something to do with our member's preoccupation with an activity traditionally linked to failing eyesight!

Finally, the great Mafu escapade. I don't suppose there is any easy way to alert your fellow skeptics when something like the Ray Martin interview is going to take place. (**None that I can think of. Ed**) Most of us are at work at midday, so we don't take much notice of what's on the box then. I only saw the *Couchman* episode.

Unfortunately, I don't think our representatives came over all that well on *Couchman*. We really should stick to one basic tenet, viz: only a very small percentage of the population are taken in by this sort of nonsense. All we can reasonably aim for is to ensure that it remains a small percentage.

Ask awkward questions by all means but simply calling Mafu a fraud isn't really going to convince anyone. A dispassionate dissection of the subject's question fielding technique would probably be more effective, e.g. "you'll notice that she's called me this and that, at some length but SHE HASN'T ACTUALLY ANSWERED MY QUESTION". Also, if people are planning to laugh together, they should practice beforehand or carry ghetto blasters with laugh tapes.

Keith Walters
Lane Cove NSW

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Skeptics and Religion

Sir

Allow me to join in the debate "Should the Skeptics Tackle Religion", and to support the Douglas II (MacArthur) strategy proposed by Barry Williams. My qualifications for participation are twofold.

My Doctorate in Theology was acquired thirty years ago at the Pontifical Lateran University, Rome, during the Rectorship of Monsignor Antonio Piolanti, the epitome of arch-conservatism, - authoritarianism and -triumphalism of the pre-Vatican II Roman Catholic Church.

Then some ten years ago, I was able to free myself from the cocoon of that institution, to find a new way of living, independent of its relatively primitive doctrines and prescriptions.

Books like Robert Macklin's *The Secret Life of Jesus* played no role in that transition: much of my Seminary conditioning was designed to barricade the mind against such direct onslaughts. But I would note that the substance, as distinct from tone, of much "in-house" scriptural scholarship could be placed down his end of the spectrum.

And I am grateful for the words and example of Jesus which not only saved me from ending up as an executive for a mining company, but also helped me - and many others - make the above-mentioned transition.

Jesus was, after all, quite an iconoclast: asserting the value and dignity of the poor, the oppressed and marginalised: challenging the arrogance, hypocrisy, greed and indifference of the religious and economic pillars of society of his time. In that context, the clearing of the money-changers and merchants from the temple was a more credible and significant event than the resurrection. People who do things like that get to be persecuted, crucified, shot.

Perhaps the most important thing we can learn from him is that the process of "saving" the world, of humanising it, continuously requires such assertions, challenges and actions, along with the attendant risks. I haven't seen the recent movie, "Jesus of Montreal", but accounts suggest that it embodies a more subtle and effective challenge to religious dogmatism than the direct onslaught on biblical foundations. It can be just as effective, and more respectful of people and their beliefs, to challenge orthopraxis rather than orthodoxy.

I fear that for most adherents, religion is used as an opiate, providing relief from the boredom, pointlessness, pain and suffering of their lives (although in developed countries sport and television may have largely usurped this role).

So I would suggest that effort could be better directed at making life meaningful and fulfilling for ourselves and for others; and extracting ourselves from relationships - and dismantling the structures - of exploitation and oppression. We are fortunate to be living in a country where, over tens of thousands of years, a people achieved, to a large degree, the sort of just, egalitarian, non-competitive, harmonious, fulfilling society advocated by many social thinkers; and that we can still learn from them.

In suggesting that, I am questioning a possible implication of Barry Williams's potted history of deism. Perhaps it is we who are the primitives, the barbarians?

And that the way Aboriginal people accept death, understand and relate to the natural world we inhabit, as evidenced, for example, in the writings of people like Bill Neidje, the art of people like Rover Thomas (hailed as the “star of the 1990 Venice Biennale”) - confirm this.

The efforts of skeptics concerned for the future of humankind might be more fruitfully directed at attacking the quasi-religious doctrines of healthy competition, forward defence, racial and cultural superiority; of the desirability of economic growth, of advertising, increased turnover/consumption, and reliance on “free” market forces, etc. etc.

Let us encourage that climate of critical thought which will address both religious and other questions with a single-mindedness that eschews stridency, and retains a role for humour in debunking popular, sacred cows.

I suspect that, if he were alive today, Jesus might take out a subscription to *the Skeptic*, and even contribute an article now and then: and that if such a publication had been around some 2,000 years ago, his followers might have found it much harder to co-opt and exploit his legacy. Let's keep it that way.

**Richard Buchhorn B.E. D.D.
West End QLD**



More creationist misrepresentation

Sir

I was particularly interested in one passage in Dr Alex Ritchie's response in *the Skeptic* (Vol 10, No 3, pp33-35) to the Creation Science Foundation's managing director's complaints in the same issue of misrepresentation of the Foundation's attitude to proposals for their Dr Andrew Snelling to publicly debate with Dr Ritchie on the topic “Noah's Flood - the geological evidence for and against”.

Dr Ritchie quotes from a letter on this subject written to the Australian Museum Society in which Dr Snelling accuses the Australian Skeptics of having “consistently exhibited a disregard of ethics”.

Snelling's accusation reminded me of an article by he and John McKay published in *New Life* (20/ 2/86) on “Skeptics Attack Creation Science”. In this they attempt to discredit the 1986 Australian Skeptics'

publication *Creationism: An Australian Perspective*.

In my article therein on “How Old is Coal”, I pointed out that had coal been formed from the existing vegetation as a result of Noah's Flood, then the coal seams and adjacent strata should be found to contain some fossils of advanced animals and birds as, according to Genesis, the world was well stocked with them before the Flood. So my account included the sentence “Such (fossils) have never been discovered either in the coal in in any of the sedimentary strata before the Carboniferous seams”.

Dr Snelling, in his attack on my article, quoted the above sentence, but in so doing gave the word Carboniferous a lower-case ‘c’ instead of a capital. This made a serious change in sense as Dr Snelling BSc, PhD (Geology) must very well have known. With the capital, “Carboniferous seams” means seams in rock of the Carboniferous geological period, whereas without the capital there is no restriction. That I was dealing with the Paleozoic Carboniferous period should have been apparent to a fair-minded reader from the rest of the article. Dr Snelling's version enabled him to quote in refutation that dinosaur remains had been found at the base of a coal seam in Belgium. A noncreationist geologist would recognise that these strata were laid down in the Mesozoic era some 100 to 150 million years after the Paleozoic Carboniferous period.

In a probably vain attempt to foil further misrepresentation, in later editions of the Australian Skeptics' publication, I have mentioned that strata of the later period, eg the Cretaceous coal measures, do contain fossils of reptiles, dinosaurs, some birds and small mammals; also different and mostly more advanced plant species than in Paleozoic Carboniferous strata. I might well have made a remark on the glorious mixture of plant species that should have left traces in and around coal had it been formed a la Creationists' Flood recipe.

As to Dr Ritchie's failure to get Dr Snelling to debate a limited topic such as Flood geology with him, that is because the Australian Creationists copy the strategy adopted by those in the USA.

As Ashley Montagu, editor of that excellent book *Science and Creationism* (Oxford University Press, 1984) explains in his introduction, “The ‘Scientific Creationists’ are quite willing to debate scientists who are naive enough to believe that they can briefly state the case for evolution and convincingly dispose of criticisms”; all in an hour or so. But the chances against getting a Creationist to defend Flood geology before a knowledgeable audience are likely to verge on the astronomical.

Finally, I suggest that most scientifically literate persons, having been told that a man with a PhD in geology lectures on his reasons for believing in the Worldwide Flood of Noah, would be interested to know whether he can validly lay claim to both sanity and honesty.

Edgar L. Deacon DSc
Beaumaris, Vic



More virgins

Sir

May I commend Alan Towsey for his careful, and accurate, exegesis of Isaiah 7:14 (*the Skeptic* Vol 10, No 3). I am another of your readers who is very interested in Biblical exegesis.

There is further evidence which helps to reinforce the standard interpretation that it referred to events in Isaiah's day.

The Hebrew word for pregnant in this passage is *harah*, which is described as an adjective in the standard Hebrew lexicon by Brown, Driver and Briggs. A remarkable parallel to the passage in Isaiah can be found in Genesis 16:11. This is about Hagar, who became pregnant to Abraham. A literal rendering of these passages, keeping the Hebrew word order, would be “Behold you pregnant and will bear a son and will call him name of Ishmael” (Gen 16:11), and “Behold the young woman pregnant and will bear a son and will call name of him Immanuel” (Is 7:14). The Hebrew consonants for the words between “pregnant” and “him” (inclusive) are identical in these passages. The vowels are slightly different to cater for the change from second to third person. It is quite obvious that in Genesis Hagar is pregnant. So if we adopt the best procedure of taking parallel passages with parallel meanings, the young woman referred to in Isaiah will also be pregnant.

I will leave it to others to argue about why the Jew Matthew should have preferred to quote from the Greek translation of the Old Testament, rather than use the Hebrew original.

(Dr) Ken Smith
Mathematics
University of Qld

As for me, I had to look up exegesis in the dictionary (Ed)



Mechanistic or Moralistic (P.S.)

Sir

A brief note before the editorial door is closed.

This debate might be reduced to simpler terms by a recognition that any code of morals and ethics that we employ has evolved by a process just as Darwinian as those which gave us our tooth patterns or our reproductive system. Christian or Humanist, we are not unique in recognising such virtues as generosity, honesty, devotion to duty, nurture of the young and weak etc.

Such generous traits are inborn because they have a survival value for tribe or herd. A snake will attack a person approaching its young, a primitive savage will go hungry so that its child may be fed. A person does not have to be a Christian to enter a burning building to rescue the occupants, or to act fairly or honestly in a business deal. These virtues have evolved as a factor for the survival of the human race. When, as in time of war, certain people, the enemy, are excluded from the tribe, we, Christian or not, feel free to plunder and kill; not without encouragement from our pastors.

So I must deny Barry Williams' view that “we are not born with some set of moral imperatives”. It is “in our genes”.

P T Millard
Narrabeen NSW

I couldn't have put it better myself. (Ed.)



Free Will?

Sir

John Fitzgerald (Letters, Winter 90) asks whether “free-will” exists. He would probably be interested in what the English physicist Prof Stephen Hawking had to say on the subject of human behaviour in an interview published in *The Australian* earlier this year.

“In principle we can predict everything from physics,” said Hawking “but the calculations are much too complicated, so we have to make approximations. I regard the idea of free will as a very good approximate theory of human behaviour.”

Albert Braunstein
Carnegie VIC



Lo-o-o-o-ong Legs

Sir

If Mt Everest was covered by water in the “Great Flood”, then the alleged coeval dinosaur tracks and “human footprints” fossils in limestone exposed in the bed of the Paluxy River, Texas, require both dinosaur and man to have five km long legs. How else would they have walked on the sea floor during the “Flood”?

One wonders what excuses your regular correspondent Dr Wieland can create to muddy these waters into a misrepresented mish-mash?

(Prof) Ian Plimer
Newcastle NSW



Subliminal Sounds

Sir

And so it was, with a wonderful sense of relief and freedom, that I read the words “this correspondence is closed...”. Although not resolved, the mechanistic/moralistic argument need never trouble my sleep again! Yippee! As a gesture of celebration, I’d like to pen a few notes on another subject.

Although by far the greatest danger posed by the New Agers and the crystal merchants is that people might die taking them seriously, there is another of their activities which offends me, and to which I would like to see some knowledgeable Skeptic pay some attention. What bothers me is this: the appropriation by charlatans of real and explicable phenomena, who then ascribe thereto some mumbojumbo to interpret the phenomena into their own dogmas.

This particular ball started rolling in my mind when

a friend tried to start me on “subliminal relaxation tapes”, to overcome my infrequent but-regular bouts of insomnia. The tapes were the usual “ambient” recordings of crashing waves, etc, but I was assured that underneath all this there were messages which would put me to sleep. And “they really do work! I’ve tried them myself...” (you know the rest.)

Either knowingly or unknowingly, the creators of these tapes are simply exploiting properties of human hearing that have nothing to do with subliminae. Because oddly enough, and without discussing vagaries like the benefits of “soothing sounds”, there are ways that the “crashing waves” can help you sleep. A brief look at a familiar phenomenon will help explain what’s going on.

Anyone with reasonably acute hearing can, when they first switch on a TV set, detect a high-pitched whistle coming from the set. That whistle is at around 15kHz in Australian TVs and it is the result of vibrations set up by the magnetic fields that make the beams scan back and forth across the tube. But after a very few minutes, very few people notice the whistle unless they get very close to the set. “Why is it so?”

The answer lies in your brain, which processes the information you get from your ears. For most people, if a low-level noise persists for long enough, the brain considers it an irritant, and begins to ignore it by “editing out” the offending frequency. This is especially true of sounds, like the TV scan whistle, that aren’t carrying important information. If you measure people’s hearing before and after watching a reasonable amount of TV, you find that their sensitivity to sounds of the same frequency as the scanning signal falls off - the brain is ignoring that sound.

What’s this got to do with ambient “subliminal” tapes?

The classic crashing waves, rainfall or “nature” sounds used in such tapes cover a very wide frequency spectrum - they’re close to what audio types call “white noise”. If you play the tapes quietly (as you are supposed to for relaxation tapes), then individual sounds become blurred, and in a very short time, the sounds cease to carry information - they’re just background noise. And, after a while, your brain decides that the sounds are unimportant and starts the editing process I mentioned earlier.

The trick is, of course, that because of the wide spectrum of frequencies covered by, say, an aural seascape, the amount of frequencies being ignored by your brain is likewise pretty large. So, after a while, your hearing becomes less sensitive to not one, but many frequencies.

If you happen to live in an urban environment, there

are plenty of random noises about to keep you awake - cars going past, trains off in the distance, horns, people, the radio in the next-door flat - and since all of these are potential information carriers, your brain is keen to make sense of them so they don't get edited out. And for many people, if they are having trouble getting to sleep, the little ordinary sounds of urban living can make the difference.

But the "subliminal" tape makes your brain edit many more frequencies; your hearing becomes temporarily less sensitive; and you get to sleep. A miracle! It must have been the subliminal message.

As an aside, the habits of the ear and brain can be useful for students who have trouble concentrating on their studies while the TV is on in another room. A science student I once knew used the radio, tuned to hiss rather than to a station, to achieve the same result. I have kept off the subject of "stop smoking" tapes and the like, partly because it's more complex and would require more space, but mostly because my guess is that the combination of wanting to stop smoking, plus a good night's sleep probably produces good enough results to sell the tapes.

Returning to my original point - some of the things attributed to "spiritual energies" and the like are simply misappropriated physical phenomena. The snake-oilers get away with what they claim because most people can't offer a better explanation. So it would be A Good Thing if some of the Skeptical commentators could devote some of their time to what's "really going on" in this wide and wonderful world.

Richard Chirgwin
Sydenham NSW



More on the flood source

Sir

"Unfair", he cried. "Foul".

You published a letter of mine (Vol 10, No 2) in which I gave the data necessary to calculate the depth of the Biblical flood, this happening having been accepted as true, according to your journal, by what, in my opinion was a meeting of more than ignorant half-wits.

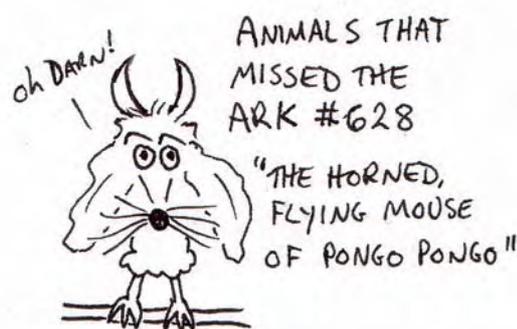
In the next issue, you said that my solution was to be delayed while you looked for an "expert" - this was the basic insult.

I told you that no such animal existed and asked

that if you found one, I would be allowed to reply to his comments. I have heard nothing confirming what I told you.

But in the issue which reached me this morning I am not - my solution is not mentioned. Fair play demands an apology, methinks, and rectification.

Dr H.H. Macey
Floreat Park, WA



Grovelling Apology from the Editor

I could say that we were awaiting more correspondence before publishing Dr Macey's answer to the depth of the "Flood" problem but that would not be the truth.

The fact is that, try as I might, I just cannot find Dr Macey's original letter. I have a suspicion that my dog ate it. Whatever the reason, I apologise unreservedly to Dr Macey and assure him that any further correspondence will be treated with greater care. As I recall the letter, his answer was 0.6 inches.

