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On the Decline and Possible Resurgence of the Decent Society

L.R.B. Mann¹

The social vision associated with the name Walter Nash, or for present purposes Jack Marshall, has crumbled. The most secure and decent high culture, which flowered for some decades, is now on almost every measure except GNP in rapid decline².

Why? The two leaders mentioned, and many others important in the building, defence & maintenance of New Zealand, were Christian but also devoted to the secular state. I interpret the downward slide of Kiwi civilisation over the past two to three decades as evidence that the attempt to maintain a system of ethics and law based historically and logically in Christianity is doomed if the religion which gave rise to it is not suitably active in its continuance.

In this context, my few years in the Skeptics led me to believe that the scientism domi-

nant in that institution is part of the problem rather than helping with any solution.

Background

It has been widely agreed during almost all human history (and, we can confidently presume, all prehistory) that the human mind can never grasp more than a tiny fraction of all the compositions and transformations of matter and energy, the physical workings of life. It is easy to be impressed with the

surge of scientific knowledge, especially this century, but even in biochemistry let alone ecology we have discovered at an even faster rate unsolved scientific puzzles.

Yet more evident is that the non-physical aspects of reality are, to an even greater extent, beyond our ken — inaccessible in principle to science, and difficult of apprehension to even refined scholars and sages.

Severe incompleteness of knowledge is, we thus humbly remind ourselves, the normal situation. Not until three centuries ago did the trend arise of pretending that human comprehension and reasoning can, unaided, discern how things are³ and judge how they ought to be. Since the period now termed "the Enlightenment" it has even become a dominant fashion to say, or at least to assume, that

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Science's Pyrrhic Victory?

Dr Mann's essay in this issue will annoy some readers, but it belongs here because it deals with one of the key debates of our time.

A recent edition of the *Times Literary Supplement* carried essays titled "Science and the Victorians", "Lessons of the Sokal Hoax" and "Some slippery encounters between Science and Literature." *The Spectator* carried a review of *Life's Grandeur* by Stephen Jay Gould. Even the *New Zealand Herald* ran a lengthy article defending science against non-scientific attack.

But Dr Mann and his colleagues are on quite solid ground when they remind us of the historical relationship between science and Christian belief. Gellner and others suggest that a religious belief which describes the creation of the universe as a deliberate innovative act, and which opposes fatalism in favour of free will which can shape the future, probably provides a benign incubator for the scientific culture.

One popular perception of the Skeptics is that we are a group of "scientific types" who believe that "science can explain everything" and that if it is not scientific then it is not worth thinking about. We are perceived to be Mozart's *Serastros* who believe in nothing which they cannot measure with a ruler.

Of course some of our more rankling claims are a natural response to the systematic attack which science is being subjected to from all sides. It is only too easy to move from the sensible argument that it is not possible to be both a scientist and a Christian-creationist, to the less sensible position that it is not possible to be both a scientist and a Christian. The very existence of Dr Mann refutes this stance.

We need to recognize that science may have been winning a pyrrhic victory. Michael Bywater's review of Gould's *Life's Grandeur* reminds us that:

All the technologies of the century are nothing compared to the tremendous de-

thronement of mankind which began with the birth of heliocentricity, which was continued through Newton, Darwin, Einstein and Heisenberg and which has been more or less completed by the geneticists, palaeontologists and geologists of the last 30 years.

Gould's book finishes the process by undermining the last source of our species' traditional self-respect. We thought we could luxuriate in the knowledge that at least we humans are an inherent consequence of an evolutionary system which, by its nature, tends to produce ever more complex species culminating with ourselves at the top of the tree. We humans are, in short "still special." Gould has none of it. His statistical approach to the world concludes that we occupy the extreme right hand tail of the complexity bell curve simply because "somebody has to". Evolution starts at minimum complexity because it must, and appears to be driven towards greater complexity only because it has nowhere else to go.

Designing a world view, and a public and private morality, to deal with this chastening reality is surely the great challenge of these interesting times.

I am a reasonably comfortable atheist. I also happen to believe, along with a few others, that our great achievement has been to move towards Popper's *Open Society* drawing on the great trilogy of freedom, science and technology along the way.

I believe freedom is a good in its own right. I am no utilitarian, promoting freedom only because it makes us richer than slavery. I appear to have good company. The famous paragraph within the American Declaration of Independence reads:

We hold these truths to be self evident, that all men are created equal; that they are endowed by their Creator with certain unalienable rights; that among these are life, liberty and the pursuit of happiness.

The writers of the Declaration find these beliefs self-evident, as I would like to. But they



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Opinions expressed in the *New Zealand Skeptic* are those of the individual authors and do not necessarily represent the views of NZCSICOP or its officers.

found them so because they were Christians. They declared that men are **created** equal — not **born** so. They were inherently more sensible because, of course, we are not born equal.

We are all born different and unequal on all manner of scales. But those who coined this phrase were talking about being equal before God — not before men.

Similarly, the unalienable rights to life, liberty and the pursuit of happiness are “endowed by our Creator”.

As an atheist I have to mentally erase all references to the Creator. But what am I left with? I believe these truths to be self-evident. But how so? Does science help? Can science help? What foundations support my belief in freedom? Can it be true that Stalin was not evil, but simply “lived by different values”? There are now Anglican Bishops in New Zealand who tell us so in the Herald, so where does that leave us atheists?

Whether we like it not, the great achievements of science have created a profound need out there for some belief system which supports such simple axioms as “freedom good — slavery bad”. I do not believe that the “established religions” will be able to re-fill it. But we must all be wondering what will, and whether we shall discover it in time before our own great trilogy lies in ruins.

The barbarians are not only at the gate. Sokal reminds us that they are trampling about within.

Owen McShane

non-physical reality does not exist at all. Science as saviour has become an increasingly influential if vague assumption.

Anti-religion attitudes had several causes, including revulsion at decadence and corruption in religion. The resultant overswing of fashion’s pendulum carried away surprisingly intelligent people who became over-impressed with science and with their own autonomy. A prominent proponent of these errors was Bertrand Russell “the most influential philosopher of the 20th century”⁴, who most admired a faith

“...that the human species would become progressively more humane, more tolerant, and more enlightened...In this beneficent process rational knowledge was to be the chief agent, and mathematics, as the most completely rational kind of knowledge, was to be in the van.”

In the ascendant for most of the time since the early 18th century, the blunder known as scientism — faith in science as the “only” way of knowledge — seems to me to be the defining characteristic, *de facto*, of the Skeptics.

The model of the universe as a clock, a mechanism which has been mechanically evolving in accordance with deterministic laws of nature, is sometimes lately attributed to Newton, but that is incorrect. Descartes and Laplace were the main advocates. Newton’s God⁵ certainly transcended the laws of nature. Indeed, Newton came in for some (misconceived) criticism for invoking in his scheme of things too much intervention by God in the running (not merely the original making) of the universe.

Science and Christianity

Systematic, objective but also respectful study of nature became possible only when the axial religions placed God outside nature. It is not widely enough known that science has never thrived except in Christian societies — with the minor exception of a couple of centuries in some Islamic centres. To dismiss this fact as a coincidence without looking into the main characteristics of Christianity and of science would be ignorant and specifically unscientific.

The “enlightenment” assumption that science can, and will soon, give an essentially complete description of the physical and biological world had become widely influential, though little discussed, when I was a science student.

More politically influential was the notion that science-based technology would indefinitely improve housing, health, education etc. The State was studiously secular. The mainstream New Zealand culture, though then composed of churchgoers to a considerable extent, had very largely lost confidence in the church, which was no longer viewed as a main source of wisdom.

Science as saviour had been popularised by not only marxists (a minor influence in New Zealand) but more importantly the dazzling successes of Rutherford and many lesser scientific and engineering lights. It was probably among scientists, mathematicians and engineers that atheism had made its most important inroads. A professor of applied maths said on national radio, upon the award of the Nobel prize in 1962 to the originators of “the” double-he-

lix structure for DNA, that it obviated God; and I do not recall any expressions of outrage at his nonsense. The anthem *God Defend New Zealand* seemed unpopular as if embarrassing.

The feebleness of the church was in effect (though not very logically) a reason for my generation's drift away from religion. Ideas which had been cherished above all others for the vast majority of the Christian era seemed somehow *passee*. Indeed, the whole category in which belong the main ideas of Christianity was ignored by not only vigorous proponents of scientism but even many typical Christians of the period; metaphysics was in drastic retreat.

The four categories of cause, identified by Aristotle and unchallenged ever since, were not taught to science students, who were commonly ignoring two or even three of them (as do today the leading scientism proponents such as Richard Dawkins and Steven Weinberg).

In the "enlightenment" attempt to implement Christian ethics in a secular state, it has been widely assumed that the

secular educated world would apply wiser ethics than had ever prevailed, in order that secular social engineering utilising science for investigation and implementation of policy would build a better society.

The value system on which all this would be done was very little discussed — just vaguely assumed. Huge organisations, capitalist as well as socialist, would be managed in a religious vacuum. Politics, and life generally, was to proceed as if no organisational care, let alone enforcement, were needed to safeguard and refine ethics.

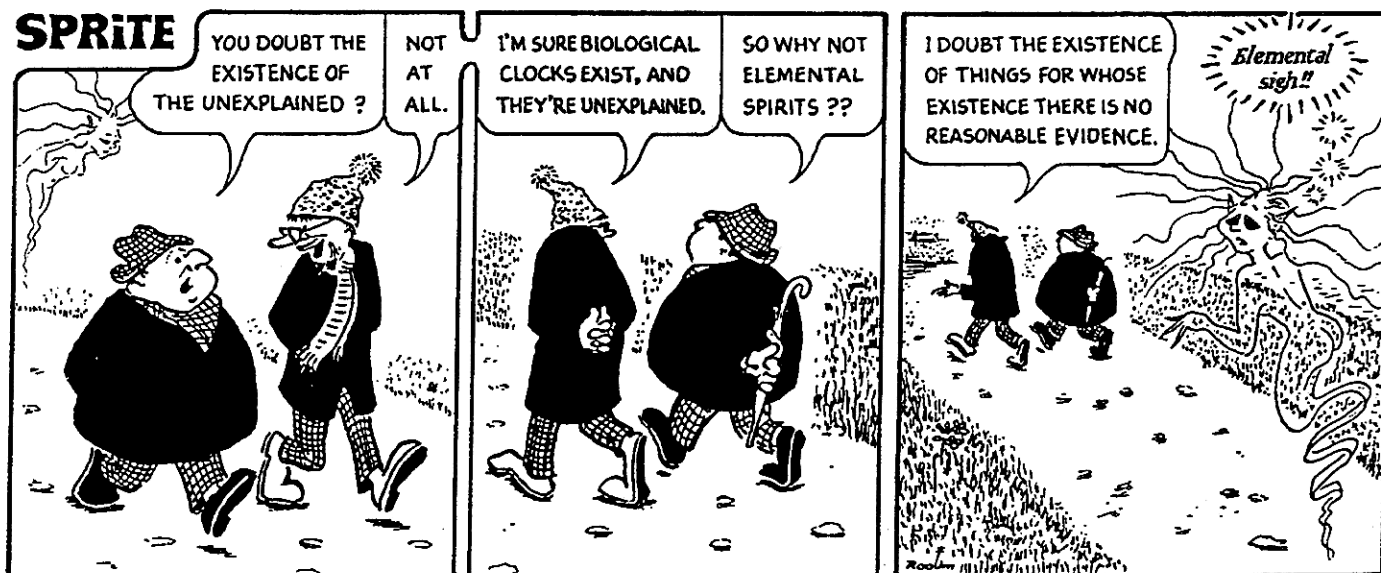
That vague vision has, to put it mildly, not worked out. The "Enlightenment" having failed by very wide margins to deliver on its grandiose promises, its adherents have few options. They can go on as if nothing is wrong, perhaps cooing "all is one"⁶; or they can revise their axioms and reconsider religion; or they can say, subconsciously, "if rationality can't suffice, nothing can", and adopt existentialism, post-modernism, post-structuralism, hermeneutics, constructivism, deconstructionism, or other nihilistic cynical defeatism, as if all reliable beliefs are inaccessible or

unidentifiable. These track-covering smokescreens of relativism grandly — "oh, that may be *your* reality" — waive arguments against ideologies such as feminism — whose axioms and dogmas do entail belief.

That the main "philosophers" advocating these silly nihilisms are French (eg Foucault, Derrida) is I think no coincidence but the logical end of the stupendously wrong fork taken by Descartes and Laplace?

Now we find the Skeptics sponsoring a speaking tour of New Zealand by a scientist who in attacking metaphysics ascribes the coherence of evolution, and even intentionality, to mere molecules (DNA), while ignoring morality.

The kindest comment on such an intellectual shambles is that it should prove a fertile seedbed for resurgence of faith as "The Enlightenment" disappears up its own fundament. Indeed, the odd phenomenon of Dawkin's enthusiastic following may be interpreted as a sign of searching for faith; it is just a pity that anyone would place faith in such a pathetically inadequate idol as DNA.



Donald Room, *Skeptic* (UK)

Widespread agreement is found that the top three mathematicians are (in historical order) Archimedes, Newton and Gauss, and the top three scientists Newton, Faraday and Rutherford. The titan straddling those lists was a Christian. He got in some trouble with the whited sepulchres of his day in theological disputes which would seem minor to most modern people, but his colossal *nuvre* is consistent with his faith. (When Noo Eegers⁸ lately call the clockwork model “Newtonian” they merely underline the ignorance which was already obvious in much of their mental candy-floss.) Faraday was also a Christian (devout if nonconformist).

But by the time of Rutherford, “enlightenment” had become respectable. This, I suggest, constituted a grave threat not only to religion but also to civilisation. The noble and briefly effective Walter Nash vision, indeed any civilisation, cannot long survive the ascendancy of materialism, especially if compounded by individualism. A variety of other politically correct furrphies⁸ — econobabble, anti-science, “anti”racism, and the very influential ideology feminism — have further accelerated social disintegration by confusing people who really ought to be able to see the severe limits of scientism.

So the clockwork model dominates science and its applications. Genetic engineering is the worst result — its breath-taking hubris is very worrying, but lately almost unchallenged. GE can be criticised, devastatingly, from various non-religious viewpoints; but I suggest that one reason why those criticisms have not proved influen-

tial is that the pose of “value-free” scientism has become widely accepted.

Perhaps the most flagrantly stupid idea to be widely held in science this century is the assertion that honey-bee behaviour is entirely genetic. Anyone who takes care of a hive for some years will see so many subtle responses to the environment, on various time scales, that the human by comparison may be judged less sensitive than the bee.

One could even be forgiven for arguing that “enlightened” human intelligence is on the whole less wise, regarding the health of the biosphere, than the bees’. Their behaviour is as if they know that this season’s *po-hutukawa* bloom will be heavy and early; if a hive’s preparation for a large nectar crop is not a responsive (group) act of wisdom and will, what is it? Surely not automatism! When that social animal, which has been one of the two best-studied, was not credited with even a sense of hearing⁹ until a couple of years ago, and is still so poorly understood that it is widely accused of automatism, we should humbly take stock of how very little understanding science has yet achieved.

In this new age of the selfish gene and the commercial gene, we need to revive the understanding of animals in Kipling’s *The Jungle Book*.

High-school science education has been almost entirely hijacked by a crazy fad. (Like the other furrphies attacked here, this is not a purely New Zealand phenomenon — it was imported.) For a period approaching a decade, the high-school science curriculum has been mucked about by their “constructivist” fad¹⁰ — the doc-

trine that scientific knowledge and method cannot be taught but must be “constructed” anew by each child, and that its comprehension is to be judged by the “teacher” then certifying “the child said it made sense”. Rather little science can get taught by those who embrace such a loony doctrine.

New Zealand science has already been gravely damaging by this spinoff from feminism — exacerbated by “Maori science”¹¹. Science will be less productive, and generally less reliable in what it does produce, than it was before these track-covering smokescreens took hold.

There is, at this rate, no prospect that science will deliver much on what Sheldrake calls its promissory notes.¹² Even within its own proper province, which is far narrower than scientism assumes, science is not going to give much more than glimpses.

That takes us back to the traditional view: humans will never understand more than a tiny set of glimpses. Humans who, especially, shun religion are doomed to an even tinier, and distorted, set of glimpses. Militaristic attempts from within Islam to fill that religious vacuum are a widely under-rated threat.

But more ominous, partly because it is nameless and has grown so recently and rapidly, is the mainstream materialistic, individualistic, thoughtless atheism which now dominates not only the overdeveloped world but also much of the developing world (notably China) and many elites of the never-to-be-developed world.

The only known basis for a decent society, and in particular the only ethical system under

which science is known to flourish, is Christianity. This religion is therefore the basic answer to the global ecological and social crises. Sad to say, Christianity has, assailed by "The Enlightenment", largely abandoned that self-image. But revival based in educational institutions remains possible.

Conclusion

I hope to have hinted here at reasons for optimism that revival of religiously-based ethics, fully compatible with science and essential to regulate technology, is a feasible, desirable and indeed crucial process beckoning those who have enjoyed the social advantages of Christianity-based New Zealand society while mining rather than maintaining its foundations.

Dr Robert Mann taught Biochemistry in the University of Auckland and then became its first and last Senior Lecturer in Environmental Studies. In retirement he now works mainly on appropriate technology.

¹ This essay originated as a tract distributed at the NZSCM reunion 6 May 1995

² A useful summary of current NZ trends is: J.L. Robinson *Destroying New Zealand*, Martinborough: Technology Associates 1996; but I as-

sume readers need no convincing of these facts

³ eg a classic quote: "I expect soon to be able to calculate the position of every star" (Descartes to Mersenne, 1632)

⁴ R Monk *Bertrand Russell — the Spirit of Solitude 1872-1921*, New York, The Free Press, 1996

⁵ J Brooke *The God of Isaac Newton* 169-183 in *Let Newton Be* ed. J Fauvel et al, Oxford, 1988

⁶ (in characteristic Noo Eege inanity, unwittingly echoing Charles Manson's immortal dictum "if all is one, then nothing is wrong")

⁷ William Temple suggests, in my favourite philosophy and natural theology textbook *Nature Man and God*, Macmillan, 1934, propounding "dialectical realism", that Descartes' morning of extreme scepticism leading to "I think therefore I am" was arguably the most disastrous moment in European history.

⁸ L.R.B. Mann "Living as if Gaia Mattered" *NZ Environment* 63 28-31, 1989; L.R.B. Mann & A Macfarlane "Why Are We Doing So Badly?" *NZ Environment* 68 12-14, 1992

⁹ "because" no ear had been found in bees' anatomy

¹⁰ M Matthews *Challenging New Zealand Science Education*, Dunmore, 1995

¹¹ M Dickison "Maori Science" *New Zealand Science Monthly* May 1994

¹² R Sheldrake *The Rebirth of Nature Century*, 1990

Lighting Up UFOS

A conversation off the Skeptics newsgroup.

First writer: *How many UFO believers does it take to change a lightbulb?*

- ❖ none — lights in the sky are alien craft, and skeptical talk of white hot tungsten filaments is typical fringe debunkery.
- ❖ four — one to change the bulb in the model, one to hold the camera, one to shake it so the photo is blurred, one to call the press conference.

Second writer: *So how many UFO debunkers does it take to change a light bulb?*

Twenty-two:

- ❖ Two to determine that there is sufficient evidence that the bulb is no longer shining.
- ❖ Two to replicate the observations that there does indeed appear to be an absence of illumination.
- ❖ Two to recommend that they must test the hypothesis that bulb replacement will result in a renewed source of light.
- ❖ Two to explain why bulb replacement will result in a renewed source of light.
- ❖ One to actually do the physical changing.
- ❖ Six teams of four apiece to replicate the bulb changing under controlled conditions.
- ❖ Six referees at two peer-reviewed journals who will review the bulb-changing findings for publication.
- ❖ One debunker to note that the entire event was anecdotal and may not have ever happened; and even if it did happen, the bulb-changing may have contained an undetected flaw.



Eating Cake While Thinking Backwards

Gerrit J. van der Lingen

NZCSIOP does not take a stand against religious belief, per se, and many Christians are committed Skeptics. While Mr van der Lingen's essay may appear to contradict this stance, he is not arguing that religious belief is incompatible with being a Skeptic; he is only challenging some claims and methodologies adopted by those who take a particular set of positions regarding the relationship between evolutionary science and contemporary Christian belief.

For a long time I have promised to write something on creationism for the *New Zealand Skeptic*. I must admit that I would like to ignore creationism, as I find the arguments of the so-called creation scientists extremely tedious. And that is probably the main reason why I haven't put pen to paper (or fingers to the computer keyboard) earlier. But unfortunately creationism remains a serious threat to science education, the role of science in society and critical thinking.

Moreover, as a geologist I cannot ignore creationism, as it denies and attacks fundamental (excuse the pun) aspects of my science, specifically the theory of evolution and radiometric dating. Without accepting these one could not practise geology. For instance, one could not search for hydrocarbons, nor solve the jigsaw puzzle of plate tectonics and continental drift, nor study paleoclimate.

We have been fortunate that in recent years we have been able to listen to talks by eminent international evolution scientists, like Stephen J. Gould (in 1991), Ian Plimer (this year), and Richard Dawkins (this year), who have done a great service to science by their writings and lectures. It was really Dawkins's lecture in Christchurch, and especially an

answer he gave during the discussion after his talk, which provided the main point for this article.

Someone asked whether, in his opinion, religion was compatible with evolution. He answered that he was aware of many scientists who accepted the theory of evolution and were also religious, but that he personally did not think they were compatible.

This touches on a very sensitive point in the struggle of science against creationism. One can almost say that it is not "politically correct" to say that religion is incompatible with the theory of evolution. Many people go to great length to explain that religion and evolution do not contradict each other. After all, God may well have used (gradual) evolution to reach His objectives for this planet, that is, to create man, animals and plants. And it is pointed out that most "mainstream" religions accept the theory of evolution. By saying that, one hopes to put the "fundamentalist" Christians in an offside position.

Ian Plimer even went as far as to get the Anglican Archbishop of Brisbane to write the foreword to his book *Telling Lies for God*. The only thing I can say in response to that type of "political correctness" is that

it shows (to borrow Shermer's title to his recent articles in the *New Zealand Skeptic*) "How thinking goes wrong" (for clarity of argument, when I write about "religion" I mean "Christian religion").

To illustrate my point I would like to quote from a discussion I had some years ago in the letters column of *Geotimes*, a geological newsletter from the US. From time to time, creationism comes up as a topic of debate.

In the May 1984 issue, Frank Press, the President of the National Academy of Sciences, wrote an editorial, titled "Science and Creationism". In it, he stated, among other things, that "it is false, however, to think that the theory of evolution represents an irreconcilable conflict between religion and science. A great many religious leaders and scientists accept evolution on scientific grounds without relinquishing their belief in religious principles". In the same breath he quoted from a resolution from the Council of the National Academy of Sciences (NAS) in 1981, that "Religion and science are separate and mutually exclusive realms of human thought whose presentation in the same context leads to misunderstanding of both scientific theory and religious belief".

In the same issue of *Geotimes*, there was a letter from Schoch and Prins from the Department of Geology and Geophysics, Yale University. They wrote: "Whereas personally we are evolutionists, we believe that creation accounts (such as that found in Genesis) need not contradict conventional evolutionary theory if religious belief and scientific fact are viewed as two different kinds of truth".

And further on: "Thus, religion and science use two coexistent, non-overlapping language meaning structures, even when the words sound and are applied the same. Religion and science need not contradict one another, but can coexist without intruding on each other's realms".

All this was more than I could stomach. I sent in a letter, which was published in the October 1984 issue. In this I stated that some consider it a useful strategy to say that many scientists who accept evolution are also devoutly religious, to give evolution respectability in the eyes of non-scientists.

However, in my opinion this amounted to "doublethink", defined by Orwell in his book *1984* as "the power of holding two contradictory beliefs in one's mind simultaneously, and accepting both of them". I mentioned the above quotes from Schoch and Prins as fitting the definition of doublethink. I further wrote that, according to the above quoted resolution of the NAS Council, religious scientists would be entertaining "Mutually exclusive realms of thought", that is, to practise doublethink. I ended by saying that religious scientists "can't have their cake and eat it".

Not surprisingly, I seemed to have touched a raw nerve, resulting in several letters to *Geotimes*. Three of them were published in the February 1985 issue, and I know of more which were not published. It would take up too much space here to quote them verbatim. However, quoting parts of them will assist in fleshing out my thesis.

J.M. Mulholland wrote: "I have enjoyed the ongoing debate among geoscientists about how to best handle the pressure from scientific creationists to have Biblical creation taught on an equal footing with the theory of evolution. Up to now I felt little urge to join the debate, but the letter by G.J. van der Linde (October *Geotimes*) struck a chord. I have to take issue with his inference that scientists who are religious must either have a deceptive 'strategy to give evolution respectability in the eyes of non-scientists', or are deceiving themselves by practising doublethink. If we believe in one God, omnipotent and creator of all, then we must believe that He created the universe and its population."

And a bit further: "Scientists who hold Judeo-Christian beliefs might say that God's creation took place perhaps 4 to 6 billion years ago and that He created only the basic chemical elements of the universe. The Bible demonstrates that God's intervention in the history is a rare and sporadic event, *and the evolution and rise of humans from lower animal forms may be the earliest instance*" (italics by me).

A James Tanner wrote: "I happen to be one of the religious scientists Gerrit J. van der Linde refers to in his letter on creationism and science, and I

do not believe I am practicing 'double-think'. My religious beliefs and my scientific (evolutionary) beliefs are not, in my eyes, mutually exclusive. Quite the contrary, my beliefs in evolution has reinforced my belief in a Supreme Being."

The essential point made by (non-fundamentalist) Christians, who (now) accept the theory of evolution, is that God created humans (and presumably other animals and plants) by the process of evolution. However, this implies that there was a God-ordained design in evolution, and that the *final* intended outcome was *Homo sapiens*, the "Crown of His creation". Or, as someone expressed somewhat differently: "Evolution as the preordained unfolding of the Creator's plan". It also implies that evolution, for all intent and purposes, has now finished.

This is in direct conflict with the ideas of most evolution scientists, like Stephen J. Gould, who, in his 1991 talk, compared evolution with a tape recorder. According to him, if we could wind back the tape, and start all over again with a blank one, the outcome would be totally different.

As the scientific theory of evolution does not support preordained outcomes, the Christian solution to reconcile their religion with the theory of evolution does not work. Consequently, their version of the theory of evolution has to be classified as pseudo-science, and my accusation of doublethink remains valid. To this can also be added the accusation of "thinking backwards".

As a simple geologist, I have not been thoroughly trained in philosophy and logic. I have to gather building blocks for con-

structing my views of "life, the universe and everything" from many varied and scattered sources. For me, one of the most seminal building blocks was Ralph Estling's article "The trouble with thinking backwards" (*New Scientist*, 2 June 1983), a critical analysis of a posteriori logic.

Explaining what "thinking backwards" is can best be done with an example. We need a starting point and a final outcome. As the final outcome we can use the lecture by Richard Dawkins in lecture theatre C1 at the University of Canterbury. There were about 700 people in the audience (overflowing into a second lecture theatre with closed-circuit television). Let us take as the starting point 1950, when I started my studies at Utrecht University in the Netherlands. I do not know where Denis Dutton was at that time, probably just starting primary school in the US.

On the first of October 1950, say, someone asks what the chances are that on 9 September 1996, an Englishman by the name of Richard Dawkins, having become Professor for the Public Understanding of Science at the University of Oxford, will give a lecture titled "Climbing Mount Improbable" to an audience of about 700 people in lecture theatre C1 at the University of Canterbury, and that everyone of his audience will sit in a particular ("pre-ordained") seat, either in the main lecture theatre or in the "overflow" room, and will be wearing the particular combination of clothing items as they did. One can add an infinite number of other "pre-ordained" conditions, such as the cars or bicycles people drove to the university, or the number of

times they breathed in and out during the lecture. Doing the calculations, one has to keep in mind that, in 1950:

- ❖ probably half of that audience was not yet born
- ❖ lecture theatre C1 was not yet built (it has only just been finished)
- ❖ part of the audience was scattered around the world (for instance, I came to New Zealand via South America)
- ❖ the TV programme *Dr Who* was not yet conceived.

Any such calculation of chance (the odds) can only be a very rough guesstimate. But people have made such calculations. Sir John Eccles once calculated the odds of him existing as one in $10^{10,000}$. And our intrepid astronomer Sir Fred Hoyle calculated the odds of terrestrial life having originated on earth as one in $10^{40,000}$. I

would have been on relatively safe ground if I had guesstimated on 1 October 1950 that the odds of Dawkins's lecture meeting taking place as it did were 1 in $10^{50,000}$. In other words, impossible. But the meeting *did* take place. By saying that the meeting, on probability grounds, could not have taken place, I am practising "thinking backwards". Only when the meeting as it took place had been *pre-ordained* would I have been right.

In conclusion one can therefore state that, because Christians require pre-ordained evolution to make the theory of evolution acceptable to them, evolution and religion are still incompatible. Only by thinking backwards can one have one's cake and eat it.

Gerrit J. van der Lingen is a Christchurch geologist and Skeptic.

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## Ten Differences between Astronomy and Astrology

- 10) Alcohol makes complex astronomical concepts very difficult to comprehend. Alcohol makes complex astrological concepts much easier to comprehend.
- 9) Astronomers occasionally make accurate predictions.
- 8) Telescopes come in a staggering array of shapes and sizes. All ouija boards look the same.
- 7) Nancy Reagan never asked an astronomer for advice.
- 6) Transposing two object's coordinates makes a **big** difference. Transposing two people's horoscopes makes **no** difference at all.
- 5) Astronomers believe in the truth of relativity. Astrologers believe in the relativity of truth.
- 4) Your VISA card limit is of little interest to an astronomer.
- 3) Carl Sagan does not have an 0900 number.
- 2) An astronomer plans his evening according to the position of the stars, moon and planets. An astrologer plans his life according to the position of the stars, moon and planets.
- 1) The main difference between astronomers and astrologers: astronomers never try to contact dead astrologers!

*Cosmic Messenger, Newsletter of the Astronomical Society of  
Kansas City, October, sent in by Alastair Sims, Auckland.*

# Newsfront

## How to dissect an 'alien' and dupe the credulous

WHEN a television film showing the supposed autopsy of an alien visitor to Earth was shown in various parts of the world, including New Zealand, last August — the so-called "Roswell incident" — all those who saw it who possessed any sense knew it must be a fake.

But the most interesting question, not answered until now, was *how* it could have been faked.

Now this ignorance is at an end. Two fascinating reports in the latest "Skeptical Inquirer", that bimonthly scourge of hoaxers and fakers, show exactly how it could have been done and how, if their authors had been at work, the "alien" could have been considerably more convincing.

The background to this piece of UFO folklore is well known. At Roswell, New Mexico, in July 1947, there was some kind of aerial accident. Probably a military surveillance plane crashed, and the US Government naturally tried to hush it up, not wishing its scattered parts to fall into Soviet hands. But UFO fanatics proclaimed that something very different had happened; that an alien spacecraft had crash-landed, killing its occupant, whose corpse the film purported to show.

"I think it could have been a much better fake," says one of the "Inquirer's" writers, Trey Stokes, a Hollywood special-effects artist who has created monsters and alien creatures for such films as "The Abyss", "Batman Returns", "RoboCop II", and "The Blob", and then explains how he would have set about faking it.

The requirements, he says, were

**ADRIAN BERRY, science writer for the "Sunday Telegraph", on how easy it would be to fake a post-mortem examination of an "alien" from outer space.**

straightforward. The film should look like a 1940s documentary. The "alien" should resemble the popular conception of one — almost human, but not quite — and the dead creature should be seen under dissection by actors pretending to be medical investigators who "discover" non-human internal organs.

The easiest approach is to get a person who in size and shape most resembles the intended alien, and build a plastic body cast around him. Remove the human subject and you have the basic shape.

Then, to give it an outlandish appearance, cover it with alginate, a paste-like substance used by dentists to make tooth casts that quickly solidifies into a rubbery semi-solid.

Give the alien six fingers and six toes — a normal human amount would be much too ordinary. To do this, wires should be inserted in its "hands" and "feet" so that these digits stick out. Then redesign the head so that its face has a peculiar staring expression.

Now the cameras roll and the "investigators" are seen cutting up the body. They are likely to employ what Mr Stokes calls "one of the oldest tricks in the book". One of them takes a scalpel and attaches a small tube to its side that

faces away from the camera. As the scalpel moves, the alien "blood" flows through the tube so that the scalpel leaves a trail of it. The investigators then extract from the abdomen suitably treated livers or kidneys obtained from the local butcher.

So much for how a Hollywood pro would have done the job. But the actual filmed performance, says Joseph Bauer, a surgeon from Cleveland, Ohio, showed monumental incompetence. It was clearly managed by "poorly advised non-professionals".

The hooded figures round the cadaver appeared to be wearing beekeepers' masks that would have neither kept in their own microbes nor protected them from alien ones. They slashed and hacked at the alien, in a manner far removed from the careful, scientific way in which ichthyologists were filmed in 1952 dissecting the prehistoric coelacanth found fully preserved in the Indian Ocean.

"Inexperienced and unskilled hands are seen groping around randomly and unsystematically, without any sign of efforts to recognise or analyse organ structures, relationships or continuity. The bizarre body contents are blindly chopped out and tossed into pans."

If this alien was genuine, adds Mr Bauer sarcastically, then the way it was shown being treated in the film was "a documentation of the crime of the century — the brutal butchery, devastation and destruction both of unique evidence and of an unparalleled opportunity to gain some understanding about this deformed creature".

© Sunday Telegraph pic

By VINCENT HEERINGA

**T**hey say it imparts peace to troubled souls. That it renders healthy the sick, stress-less the stressed and turns the muddled-minded into the clear-headed.

The Beatles did it - and look where it got them.

The Natural Law Party does it - and it, along with McGillicuddy Serious Party, netted \$35,000 worth of public broadcasting money.

Obviously there's something in Transcendental Meditation or the movement would have died along with worry beads and ponchos - or least have inhabited the shabby world of sham clairvoyants and seers.

Instead, TM has evolved into a multi-million dollar industry practised by four million meditators world-wide and 30,000 in New Zealand.

And we're not talking about kooks and cranks. Some of its strongest adherents are business leaders, sportspeople and the medical fraternity.

The Australian Mahatma Foundation, which teaches the art of TM, lists among its followers: Rob Fergusson, managing director of Bristow Australia ("If you have a much better chance of being on top"); Ted V. Manager of Sydney's R ("TM has changed my life"); Thomas Wenkhart, chairman and chief executive of Macquarie Health Corp ("TM has raised my threshold"); and entrepreneur Bob Lapointe ("it allows work longer and harder").

Here, managing director of PSM Holdings and one of the All Black selectors, Thorburn, Auckland coach John Bracewell, chief executive of Rentals Vicki Salmon, general manager of Lumber Tony Johnson appear on the Mahatma promotional literature.

So what exactly do they get out of it?

"Its effect is both mental and physical," asserts Brian

## Clairvoyant advised bankruptcy

Evening Post 31/1/96

A woman has told a judge she sent her money to Zurich and filed for bankruptcy on the advice of a clairvoyant.

Esmeralda Fitzgerald, 51, pleaded guilty to having concealed part of her property from the Official Assignee when she was declared bankrupt in March 1990.

Wellington District Court Judge Anne Gaskell heard on Tuesday that after Fitzgerald was discharged from bankruptcy in March 1993 the OA was told Fitzgerald had funds invested on her behalf.

The OA has since recovered enough money to pay the \$89,000

tax bill on which Fitzgerald was originally bankrupted, and another \$42,000 debt to Income Support Services plus the \$30,000 interest on the debt.

Judge Gaskell convicted Fitzgerald and ordered her to come up for sentence if called upon within 12 months.

Prosecutor Lisa Boon said the tax department was claiming a further \$1 million from Fitzgerald.

Ms Boon said that before Fitzgerald's bankruptcy she was unemployed.

She sold a flat and in July 1989 sent the \$160,000 proceeds to Zurich, later bringing the money back to New Zealand. When she was bankrupted she denied having any assets or having sold any assets in the previous 12 months.

Through her lawyer, Fitzgerald said a clairvoyant advised her to go into bankruptcy.

The OA was told of her assets when Fitzgerald refused to comply with the demands of an ex-boyfriend.

She now had no assets and was living in Social Welfare houses in Auckland and Wellington. She had been an invalid beneficiary for more than 10 years.

## Tests belie alien crash claims

Evening Post 15/1/98

SANTA FE (New Mexico), August 13. - A fragment of wreckage from a supposed spaceship crash in New Mexico is composed of metals found on Earth, a scientist said today, casting doubt on claims it was once part of an alien craft.

Larry Callis, a scientist at Los Alamos National Laboratory, said his tests confirmed that copper and silver in the fragment matched the metals' composition on Earth.

"I sort of expected it to be terrestrial," said Callis, who conducted the isotopic tests on the frag-

ment for a Roswell UFO museum. "But it was fun doing something different," said Callis, who normally tests uranium and plutonium for the lab's nuclear research facility.

The metal fragment was found by military personnel investigating a mysterious crash in the desert outside Roswell, New Mexico, in July 1947, said Deon Crosby, director of the Roswell International UFO Museum and Research Centre, which paid for the tests.

The crash inspired the summer blockbuster film Independence

Day and is considered by many as evidence of alien life. But the US Air Force has said the wreckage was remnants of a spy balloon used to detect the launch of Soviet nuclear missiles.

Museum officials were undaunted by the lab tests and said they believed the fragment was part of an unidentified flying object, or UFO.

"We may not yet, as a nation, have the scientific tools to recognise materials from out of this universe," Crosby said. - Reuter

## Natural healing pro

Waimate Hospital could become a centre for natural healing, embracing Maori and other traditions.

New Zealand First candidate for Aoraki Jenny Bloxham is suggesting that Waimate has a unique opportunity to become a natural health centre.

"Waimate Health Development Ltd has asked Health South Canterbury to return the hospital to the community, and my idea would not conflict with the trust's other proposals," Mrs Bloxham said yesterday.

"With the transfer of patients to Lister Home, the hospital should be secured and used for the benefit of all the people of Waimate district," Mrs Bloxham said yesterday.

An added incentive was that

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# uates to peace of business for TM faithful

managing director of Auckland electronics company Connector Systems. Gurr and wife Dianne, the company's accountant, started practising TM three-and-a-half years ago after being introduced by a family member.

"Soon after starting TM we felt much more relaxed and more able to cope with stress. We felt wide awake, as if we'd just woken up from a really good sleep," says Gurr.

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**You'd probably find the same kind of statistics and experiences apply to those who lead decent, Christian lives and pray twice daily.**

- Dennis Dutton

"I haven't been sick with colds or flu since I started."

Tony Edmonds of Phoenix Public Relations testifies that since adopting morning and evening meditations last Christmas, his peripheral vision improved, his perception of colours became more profound and his ability to handle stress increased out of sight.

"I also play soccer with much greater energy but seem to have fewer injuries," he says.

Indeed, the universal assessment by practitioners is that TM reduces stress, enables people to work longer hours,

makes them think more clearly, makes them more innovative, gives them greater control over their tempers and enhances their relationships with those immediately around them.

All of which makes it sound like cheap medicine - for 40-60 minutes per day and a \$1,000 fee to the Maharishi Foundation, holder of the exclusive teaching rights to the procedure.

So effective are its results that a number of managers recommend staff join the fun.

Head of Wanganui's Professionals real estate group Earle Doble offered to pay for key members of his 30 staff to do the same course he completed six years ago. Seven took it up, two remain with company and practise meditation. Tasman Lumber's former manager Tony Johnson recommended the same for his management team.

However, human resource consultants doubt the technique is about to muscle its way into HR programmes.

University of Auckland management lecturer Peter Boxall says talk about TM has declined over the past decade.

"There was a boom in courses and consultants associated with executive stress about 10 years ago. TM came to prominence among businesspeople along with all of those," he says.

Fay Sowerby, human resources consultant with KPMG, says she knows of only one or two companies



THE MAHARISHI MAHESH YOGI

offering TM as part of their HR service. For the most part, it has been prescribed by doctors or encouraged among workmates by individuals.

Sowerby hasn't noticed any increase in its popularity over the last five years.

The benefits of TM remain, it seems, largely private and its currency limited to individuals.

Of course, that's not what the protagonists would have you believe. At one level, TMers like Edmonds and Gurr say increased personal health and optimism have had an inevitable impact on their relationships and work spaces.

TMers, too, are fond of producing piles of statistics about the relative healthiness of those who practise meditation.

To arch-sceptic Dennis Dutton of Canterbury University, the statistics and

its effect is both mental and physical. Soon after starting TM we felt much more relaxed and more able to cope with stress. We felt wide awake, as if we'd just woken up from a really good sleep.

- Brian Gurr.

personal stories tell more about the state of the white, educated people who care for their health and well-being enough to meditate daily, than they do about meditation.

"You'd probably find the same kind of statistics and experiences apply to those who lead decent, Christian lives and pray twice daily," he says.

At another, more doubtful end of the spectrum, serious TMers, such as the Maharishi Foundation chairman and leader of the Natural Law Party Bryan Lee, claim the practice of meditation itself sends good vibrations throughout the community and is able to influence its general well-being.

Hence claims by the party's team of yogic flyers - advanced meditators who allegedly levitate - that round-the-clock meditation can reduce disease, the crime-rate and produce conflict-free politics.

A yogic vibe squad would replace the airforce; the Maharishi Corporate

Revitalisation Programme would increase business productivity; a perfect society and problem-free government would result if society was to follow the Maharishi's Vedic Science.

Among the numerous scientific references appealed to by the Maharishi Foundation is an experiment in yogic flying conducted in Washington DC.

TM devotees had converged on the city since the early 1980s in an attempt to create a critical mass of meditators and induce the "Maharishi's Effect," a state of calm and non-violence.

But the scheme was abandoned as a failure in 1991 with the Maharishi encouraging followers to leave the "Pool of Mud" and head to safer locales.

Not everyone obeyed. Further attempts at generating the effect were made in 1993. Victorious yogic flyers claimed correlations with a 26% falling crime rate.

Dutton claims the correlations are purely accidental. During the same period the murder rate actually increased in Washington and later that year the whole of the mid-west experienced unprecedented flooding. Perhaps the yogic flyers were responsible for all this too, he says.

It's impossible, however, to tell someone he/she hasn't experienced benefits from meditation - a point Dutton readily accepts.

Whether meditation is better than good sex or sleep is probably up to individuals to decide.

## posals

Herald 22/8/96

technic (which has campus) was the in the country ofifications in natural and could become and institute in the er a degree in natu-

s Bloxham said. te has a unique op- here. Visitors to seeking natural could provide a sig- st to the local econ- me, recognising the stress-free environ- t be tempted to be- anment residents,"

Waimate hospital be closed at the end nth, no decision on of the buildings and been announced.

CONTACT, DECEMBER 5, 1996

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## Are our soles the key to our souls?

### Health

**HEALTH** and healing are literally only two feet away, according to world renowned reflexologist Chris Stormer.

"The feet are a mini map of the body," says Chris. "We can reveal the state of our soul through our soles."

Chris, who lives in Johannesburg in South Africa, visited Plimmerton recently to hold a workshop on the Language of the Feet.

Reflexology is an ancient healing art that has been practised for thousands of years. It recognises that there are reflex points which relate to every part of the body.

Gentle massage and manipulation of the feet keeps the mind, body and soul in excellent working condition, says Chris.

According to Chris:  
● Big toes reveal intellectual and intuitive capacity.

● Second toes display thoughts regarding feelings of self worth and self esteem which are related to the respiratory system.

● Third toes reflect thoughts regarding activity.

● Fourth toes are related to communication and relationships. Overwhelming concern in this area can be detected by wrinkles and lines on the lower half of the fleshy insteps.

● Little toes think about security, personal growth, progress through life and expensive concepts, which

are greatly influenced by family and social surroundings.

Chris, born and educated in Kenya, is a qualified nurse and midwife and has worked in the medical profession for ten years in both America and England.

She has written four books on reflexology and travels the world lecturing and holding workshops.

And how does she cope with smelly feet? "Teenagers are the ones who have smelly feet, it's a sign that they are working through their childhood issues. They are a good sign."

● Chris Stormer's books are available from Plimmerton Gallery or for more information on reflexology contact Emma Fromings Reflexology and Massage Therapy Clinic, (04) 233-9653.

# Carl Sagan, 1934-96

Carl Sagan, one of the world's greatest popularisers of science, died on December 20th at the age of 62, after a long battle with a bone marrow disease. Sagan was one of America's pre-eminent scientists, educators, skeptics and humanists. He was also a founding member and Fellow of the Committee for the Scientific Investigation of Claims of the Paranormal (CSICOP) and a member of the Council for Secular Humanism's International Academy of Humanism.

Sagan's award-winning 1980 TV series *Cosmos* turned the ebullient cosmologist into an international celebrity, with audiences of over half a billion people in 60 countries; the book spent 70 weeks on the *New York Times* best-seller list.

His article in *Parade* (March 1996), titled "In the Valley of the Shadow", spoke movingly of his illness and his attitude to death as a non-theist and skeptic:

*I would love to believe that when I die I will live again, that some thinking, feeling, remembering part of me will continue. But much as I want to believe that, and despite the ancient and worldwide cultural traditions that assert an afterlife, I know of nothing to suggest that it is more than wishful thinking.*

*The world is so exquisite with so much love and moral depth, that there is no reason to deceive ourselves with pretty stories for which there's little good evidence. Far better it seems to me, in our vulnerability, is to look*

*death in the eye and to be grateful every day for the brief but magnificent opportunity that life provides.*

Despite Sagan's fame as popular writer and TV personality, his main career was in academia. From 1971 until his death, Sagan was Professor of Astronomy and Space Science at Cornell University. He also worked for NASA and was responsible for NASA space probes Pioneer 10 and 11 and Voyager I and II interstellar messages.

Sagan actively supported the work of CSICOP. In 1987 he was the recipient of CSICOP's "In Praise of Reason Award".

In 1994 CSICOP created the Isaac Asimov Award to honor Asimov for his extraordinary contributions to science and humanity. The first winner of this award was Carl Sagan. When told that the award would be presented to Carl Sagan, Janet Asimov said, "There is no one better qualified for the CSICOP Isaac Asimov Award than his good friend and colleague Carl Sagan. Isaac was particularly fond of Carl. He was also in awe of Carl's genius, and proud that he was so adept at communicating science to the public through speaking, writing, and the visual media."

At the CSICOP Seattle congress, Sagan spoke to an audience of over 1,000 skeptics about his love of science and the importance of popularisation of science:

*"Science is still one of my chief joys. The popularisation of science that Isaac Asimov did so well — the*

*communication not just of the findings but of the methods of science — seems to me as natural as breathing. After all, when you're in love, you want to tell the world."*

Paul Kurtz, chairman of CSICOP, said, "Carl Sagan was one of the leading scientific skeptics in the world and a critic of anti-scientific and irrational attitudes, and perhaps the leading proponent of the scientific outlook and the methods of science. His untimely loss is deeply felt by the scientific and academic community."

In his last book, *The Demon-Haunted World: Science As a Candle in the Dark*, Sagan wrote:

*I worry that, especially as the Millennium edges nearer, pseudoscience and superstition will seem year by year more tempting, the siren song of unreason more sonorous and attractive. Where have we heard it before? Whenever our ethnic or national prejudices are aroused, in times of scarcity, during challenges to national self-esteem or nerve, when we agonise about our diminished cosmic place and purpose, or when fanaticism is bubbling up around us — then, habits of thought familiar from ages past reach for the controls.*

*"The candle flame gutters. Its little pool of light trembles. Darkness gathers. The demons begin to stir.*

The world has just become a bit darker.

# Tabloid Predictions Miss Again

*1996 was an interesting year. Rush Limbaugh became the Republican nominee for President; Roseanne killed off her popular TV character; cures for baldness, arthritis, and AIDS were announced; and Michael Jackson had a sex-change operation.*

If you don't remember those headlines, you're not alone. They didn't happen. But those are some of the events that were supposed to occur in 1996 according to the top psychics who reported their predictions a year ago in the supermarket tabloids.

As in previous years, their batting record for forecasting major unexpected news events was abysmal.

Here's a tabloid-by-tabloid rundown of the year that should have been, according to some of the world's best "psychics".

## **The National Enquirer:**

- ❖ O. J. Simpson will become a minister after confessing that he killed Nicole Brown and Ronald Goldman.
- ❖ O. J. attorney Johnnie Cochran will be hailed as "the new Bill Cosby" when he plays a defense attorney in a TV comedy that becomes "a smash" hit.
- ❖ Barbara Walters will be kidnapped by Middle East terrorists, "but will be freed after ABC agrees to let the terrorists air their views on a three-hour broadcast hosted by Barbara."

## **The Globe:**

- ❖ O. J. prosecutors Marcia Clark and Chris Darden will marry; meanwhile Simpson will join a monastery.
- ❖ Susan Lucci finally wins an Emmy but breaks a toe when she drops it on her foot.
- ❖ Angela Lansbury will devise "a dramatic departure from *Murder, She Wrote* by casting herself as the show's final victim."

## **The National Examiner:**

- ❖ Michael Jackson will undergo a "complete sex change and insist that everyone call him Michelle...His wife, Lisa Marie, will stick by him and they'll develop an even closer relationship."
- ❖ Comic actor Jim Carrey will get an Oscar after his face freezes in a twisted expression.
- ❖ Nuclear missiles will be used to break up a giant asteroid hurtling toward Earth.

## **The Sun:**

- ❖ An American astronaut "will give birth to a healthy baby girl during a six-month mission aboard the Russian space station Mir."
- ❖ Rush Limbaugh will be the Republican nominee against Bill Clinton, picking Sonny Bono as his running mate.
- ❖ Tonga will land and then strand people on the moon. The US will rescue them.

## **And more...**

On the medical front, 1996 was supposed to be the year that Star Trek star Patrick Stewart discovered an herbal cure for baldness, actor James Garner discovered a cure for arthritis that people could make in their own kitchens, and a miracle cure for AIDS was found.

The prize for the most embarrassing prediction goes to Mystic Meg, a psychic for the *Globe*. In the January 2, 1996, issue she said, "Jerry Lewis and Dean Martin reunite for an emotional reunion on TV". Martin died in December of

1995, around the time the prediction hit the newsstands.

A year ago, in response to a similar analysis, *National Enquirer* executive editor Steve Coz told a reporter from the *Dallas Morning News* that the list of predictions "isn't something to be critiqued" because "it's a fun read, and it's meant to be taken as that". Okay. But in the same interview, Coz said the predictions are published to tell readers, "Here's what you can look forward to".

In short, the *Enquirer* tries to have it both ways by trying to build up the credibility of their psychics when they publish the predictions, yet billing the predictions as entertainment when the editors are forced to confront the fact that they keep quoting psychics whose predictions, year after year, fail.

## **What's in store for 1997?**

According to the tabloid psychics, it will be the year plastic surgeons discover a way to give dogs the faces of movie stars, Tammy Faye (wife of disgraced tele-evangelist Jim Bakker) is appointed ambassador to Israel, Americans get a \$1,000 tax deduction for every career criminal they kill, scientists discover how to communicate with the dead, time travel becomes as affordable as a Disney World vacation, and Madonna makes a successful run for US Senate.

Gene Emery writes the *Skeptical Inquirer's* "Media Watch" column.



# The Great New Zealand Bean Hoax

*Names have been concealed to protect them from the international legume conspiracy.*

Date: Tue, 9 Apr 1996  
To: letters@nytimes.com  
Subject: Faked picture

I fear the *New York Times* is the victim of a hoax. The Sunday Times for April 7 (Section 4, Week in Review, page, 2) depicts a New Zealand farmer with a wheelbarrow load of what are alleged to be seven foot beans. A simple calculation shows that something is wrong.

A very large Kentucky Wonder green bean might reach 8.4 inches, one tenth of the length of a seven foot bean, and it might weigh a third of an ounce, say ten grams. The weight of the seven footer (by this conservative estimate) would accordingly be 10 kilograms, or 22 pounds.

What kind of a vine could support the weight of clusters of 20 pound beans, and how tall

would it have to be to dangle seven foot fruit? What would it climb? If these are supposed to be bush beans, the bush would have to approach the dimensions of a small tree, and a sturdy one at that. To the best of my recollection, the largest fruits that dangle from a tree or vine would be something like coconuts or breadfruit. All really large fruit grow on the ground.

There are other clues. The stalks look suspiciously small to have carried such a large weight. Farmer Maich does not seem to be pushing very hard against what must be a hundred and fifty pound load (at least.) If you look carefully you will see that the light illuminating most of the scene comes from a different direction than the light falling on the beans, which do not appear to cast a shadow

where they pass over the edge of the wheelbarrow.

██████████  
Professor Emeritus of Biology  
██████████ University of New York  
at ██████████

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April 29, 1996  
Editor  
*New Zealand Herald*  
Hamilton NZ

On April 7 the *Sunday New York Times* ran a story from the *New Zealand Herald*, by way of Reuters, about a New Zealand farmer who had grown 7-foot green beans, with a picture of farmer John Maich trundling a wheelbarrow load of them.

It took no great perspicacity to see that the picture was a montage and the story a hoax, but since the date of the publication in the "Times" was the



seventh, am I right in assuming that the publication date in the Herald was the first? I would like to think so.

That date should have induced caution even in the minds of Yankee editors, but so far the Times has refused to concede that it has been taken in.

I wonder if farmer Maich would let me climb his giant bean stalk. I might find a hen that lay golden eggs up there.

Anyway, my congratulations on a clever April Fool hoax.

[REDACTED]  
Professor Emeritus of Biology

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May 3, 1996  
Peter Thomas  
Media Inquiries  
Reuters London

In its April 7 issue, the *New York Times* ran a story from the Reuters wire about a New Zealand farmer who claimed to have grown beans seven feet long. The story was accompanied by a photo-montage; a rather obvious fake. The story was attributed to the *New Zealand Herald*, of Hamilton New Zealand. I assume from the date that the story was originally an April Fool joke.

My question is was Reuters taken in, or did you have the corporate tongue firmly inserted in the institutional cheek? If the latter, you managed to deceive some unexpectedly naive editors. Neither the Times nor the Herald has so far owned up to being taken in or originating this story.

I am not opposed to a little good natured spoofing, but I am made uneasy when I reflect that if people like newspaper edi-

tors, with all of the educational and resource advantages available to them, are so easily taken in, what must be the effect of stories like this on less sophisticated readers?

Doesn't anyone have a responsibility here to admitting to this leg-pulling?

[REDACTED]  
Professor Emeritus of Biology

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May 3, 1996  
Editor's Office  
The New Zealand Herald

Dear Professor [REDACTED]

Thank you for your letter of April 29, but I wonder just who is the April Fool in this matter — certainly not us or the *New York Times*.

The photograph in question was no montage (except perhaps to those of no great perspicacity); the report was no hoax. And neither us, nor the Times, was taken in. The beans are as depicted, and I enclose the photograph as published on our front page on April 6 to show that.

Indeed, Mr Maich has exhibited them in the agriculture section at the Auckland Easter Show, a considerable feat for an April Fool's hoax. I should perhaps add that, while we do on occasion essay such a seasonal jest, this most assuredly was not one of them.

But thank you for your interest, which is appreciated.

Yours sincerely  
[REDACTED]  
DEPUTY EDITOR

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D. S. Milne, Deputy Editor  
The New Zealand Herald  
Auckland

Thank you for your response to my letter of April 29 concerning giant beans. To say the least I am surprised.

Would it be possible to obtain a print of the original photograph? I would be happy to pay the cost of shipment by parcel service, or any expedited shipping service.

Cordially,  
[REDACTED]  
Professor Emeritus of Biology.

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May 15, 1996  
Professor [REDACTED]  
Section of Plant Biology  
Cornell University

Here is the material I telephoned you about. With the aid of new information provided by the original story in the Herald, I am able to refine my estimate of the probable weight of these beans.

With a length of 200 cm and a diameter of 37 cm, and considering the bean as a cylinder, we arrive at a radius of 5.9cm and a volume of 6.935 litres. Reading that directly as kilograms (I have no idea what the specific gravity of a bean would be) we get a weight of over 16 pounds. Since my beans, anyway, grow in pairs we would have a minimum of 30 pounds per cluster of beans.

Further evidence for doubting the authenticity of the picture is provided by the suspiciously bright lighting of the beans. Chlorophyll absorbs a hell of a lot of light. The beans are quite bright and must have been photographed under very strong light; much stronger than

that illuminating the background vegetation.

If someone with your experience tells me I have insufficient evidence to condemn this as a hoax, I am perfectly willing to apologize to all and suffer the sensation of egg on the face. Otherwise, I have some other options. I await your judgment.

██████████  
Professor Emeritus of Biology  
██████████ University of New York  
at ██████████

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CORNELL UNIVERSITY  
Section of Plant Biology  
May 15, 1996

Dear Prof. ██████████,

After looking over the material faxed to me I have no doubt that the photograph is a misrepresentation of fact.

In addition to the features calling into question the veracity of the photograph mentioned in your letters to various editors, I was struck by the fact that the beans show no structural distortions that would be expected assuming their size and growth rate are as proportional to one another as size and growth rate are to lesser sized beans. Also, there are certain size-dependent variations in fruit structure and shape (allometric relationships) that are absent in the beans in this photograph. In this case, I would expect a much narrower bean given the length shown in the photograph.

I doubt that these beans could have grown on any vine unless the pedicles were made of wood. I would mention the possibility that these fruits grew on the ground from a prostrate vine if the whole matter were not as ridiculous as you have so

astutely judged. One of the great pities of this world is that people are so woefully ignorant of plant life that even the most skeptical editors (let alone their generally gullible readers) can be taken in by what are obvious hoaxes. Unfortunately, it is an extremely difficult matter to prove a hoax especially when access to the original material is denied or physically impossible. I sincerely doubt that you will be able to educate the editors of *The New York Times* and suspect that their retraction would appear in the obituary column if you could. Nevertheless, I applaud your clear thinking, energy and enthusiasm in trying to do so.

Please let me know if I can be of any further assistance. I fear I have not been of any help except perhaps to confirm your suspicions.

Cordially  
██████████  
Professor of Botany

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May 15, 1996  
Professor ██████████  
Section of Plant Biology  
Cornell University

Dear Professor ██████████,

Thank you very much for your opinion. It is a great help to me. I didn't expect these fellows to brazen it out, and I was taken by surprise. I really did think it was a typical newspaper hoax. Now it seems clear that it was hatched by the rascally farmer (who wants to get into the Guinness Book of Records) and his photographer friend. It took considerable skill to fabricate that picture. Getting the end of the bean to tuck in under the handle of the wheelbarrow

without leaving a trace of the patch is not easy.

On the original newspaper picture that I have before me I can detect two very faint lines on the handle where it crosses the bean. If I had a print of the original photograph I might see more. In addition to everything else, Farmer Maich has an intriguing theory of agronomy. "You give them tonnes of compost and heaps of manure... You do that every day for five months and you're in business." Funny, when I give my plants "tonnes" of fertilizer, they don't get bigger — they die.

I agree with you that it is unlikely that the New York Times will admit to a mistake, having been given an opportunity to back down gracefully and having chosen to ignore it. What I have in mind is to first get a little more information from New Zealand and then to write this up for "The Skeptical Inquirer" which has had an ongoing discussion of the ethics of hoaxing,

Again, thanks for your help and encouragement.

██████████  
Professor Emeritus of Biology

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May 21, 1996  
Ms. Vicki Hyde  
Chairperson  
New Zealand Skeptics

Dear Ms Hyde,

Could I trespass on the good nature of a fellow skeptic to get some help with the attached project? I am convinced that this photograph is a fabrication. If just my own opinion were involved I might not be so positive (although the whole thing looks pretty hokey), but I sub-

mitted this to Dr. [REDACTED] of Cornell University, who is probably the world's authority on plant biomechanics, and his opinion tallies exactly with mine. I originally thought it was just a clever leg-pull, in line with the venerable tradition of April Fool newspaper stories (considering the date upon which it originally appeared), but the editor's bald denial puts a somewhat different light on this.

I have already requested a glossy of the original photograph, which Joe Nickell of CSICOP has agreed to look over for me to see if I am right about my criticisms of the photo, but If I am to go further with this I need the help of persons nearer the ground than I am. (And I fully realize that Christchurch is not exactly next door to Auckland and Helensville.)

Specifically, I would like to know:

(1) The genus and species of this "New Guinea Giant Bean" and the normal range of the bean size, and any pictures that may be available, The beans in the picture look like plain old Phaseolus vulgaris.

(2) Whether anyone has seen the plants (Vine?) upon which these remarkable beans were grown.

(3) Just what did Farmer Maich display at the "Agriculture Section of the Auckland Easter Show" (See Editor Milne's letter. Milne calls it that, but the newspaper story says the beans are to be entered in the "annual agricultural show in Kumeu, northwest of Auckland." I guess that doesn't really matter, except the one implies exhibition in a big city. )

(4) Have the opinions of any New Zealand botanists or agronomists been consulted in this matter? Additional opinions would be welcome.

I realize this is a lot to ask, and I will certainly understand if you decide that you may not want to spend much time on what is, after all, a minor hoax, but I am annoyed that editors should get away with this kind of bluff.

Any help you can give me at all will be greatly appreciated.

Cordially,  
[REDACTED]  
Professor Emeritus of Biology

☺☺☺

Date: Wed, 22 May 1996  
14:09:12 GMT  
From: nzsm@spis.co.nz  
Subject: Humongous Giant Beans!

Dear Professor [REDACTED],

I'm relieved to be able to reassure you concerning the trustworthiness of New Zealand newspapers. While our papers are known to run the odd April Fool's Day hoax, I am confident that the "giant New Guinean beans" represented in the photo from the *New Zealand Herald* are in fact real.

As editor of the *New Zealand Science Monthly* (as well as chair-entity of the local Skeptics), I've got good contacts in the science community. Leading bean experts from the Crop & Food Research Institute and Landcare Research have been happy to talk at length about these beans, known in their circles as *Entarda phaseoloides*.

*E. phaseoloides* is found throughout the tropical region as an enormous liane clamber-

ing up the sides of any tree large enough to bear their hefty weight. Over the period of 18 months, they have been observed to advance as much as 100 feet and produce stems "as thick as a man's wrist". The pods, as pictured in the *NZ Herald* photo can indeed reach seven feet in length, although 4-5 feet is more common.

The seeds are well-known for their nautical ability, being found as far afield as the British Isles; they're sometimes referred to as "sea beans" because of this. They are dark brown, flat, about an inch or so across (I was pleased to recognise the description having encountered them on beaches here in New Zealand).

*E. phaseoloides* is indeed a legume and, although the bean is inedible, the vines are commonly used as a water source throughout the South Pacific. My helpful expert said it was reasonable to refer to the plant as a bean, though he himself, as a botanist, would hesitate to use the term in anything but a culinary sense.

There are more things in Heaven and Earth...

Best regards  
Vicki Hyde  
Chair-entity NZCSICOP Inc

☺☺☺

September 9, 1996  
Mr. [REDACTED]  
Senior Research Fellow CSICOP

Dear Mr. [REDACTED]

A couple of months back I wrote to you about assessing the genuineness of a photograph that had appeared in the public press, purporting to be that of a wheelbarrow load of giant beans. In our telephone



conversation at that time, you told me that it would be difficult to give an answer from just the newspaper pictures, since many of the sources of clues would be degraded by the half-tone processing, but that you would be willing to try if nothing else was available.

On May 21, I requested a print of the original photograph from the *New Zealand Herald*, the originator of the story. To date I have received nothing, and since three months is ample time to have received mail from New Zealand, even if sent by ship, I must conclude that the paper does not intend to honor my request.

I therefore submit to you the pictures that I do have, black and whites from the *New York Times*, and the front page of *The New Zealand Herald*; a much enlarged color photograph showing marginally more detail. The question is: Is this a montage of photographically enlarged beans superimposed on a picture of a full sized wheelbarrow, or not? Or, can you tell?

A bit of background. My professional specialty is that of functional morphology; I study the relationship between structure and function. One of the basic tenets of my trade is the Law of Scale. Simply stated, this holds that as any object increases in size, its weight increases more rapidly than does its strength to resist that weight. This means that as organisms attain large size, their proportions must change.

When I come upon a picture of what purport to be seven foot long beans that look to have the same proportions as ordinary ones, my suspicions are aroused. If these beans are over ten times as long as ordinary

beans, they must weigh well over a thousand times as much. I wondered what the plants upon which they grew must have been like, and reflected that to have grown 400 of these things in the back yard (as the newspaper story claimed) must have created quite a spectacle.

Since, however, I am a zoologist and not well acquainted with the constraints of plant structure, I solicited the opinion of Professor [REDACTED] (perhaps the leading authority on plant biomechanics.) His reply was immediate and emphatic. The picture was a falsification.

Since the original newspaper story in the *Herald* was dated early in April, and since the falseness of the picture was so obvious to me, I assumed that the story must have been an April Fool's day hoax, so I wrote a facetious, kidding letter to the Editor congratulating the *Herald* on the joke.

What was my surprise to get back a letter denying that the picture was a hoax and stating that the grower had exhibited his beans to the public. Apparently, if there were any deception, the *Herald* was not responsible. It was at this point that I requested the print of the original photograph that I have not received.

I noted that the newspaper story referred to the beans as "giant New Guinea beans", a name I did not recognize, so I solicited the help of Ms. Vicki Hyde, Chairperson of the New Zealand Skeptics.

After consulting a botanist, she informed me that that term is used to designate the tropical liana, *Entada phaseloides*, whose pods drift around the tropical oceans, and can indeed reach almost that length. But my own research quickly re-

vealed that the beans depicted could not possibly be *E. phaseloides*. The pods of the latter would have been flatter (and of course, considerably lighter) and the contained seeds proportionately much smaller.

I then consulted Mr. [REDACTED] at the Harvard University Herbarium. He confirmed that the pods were certainly not *Entada phaseloides* but might be some sort of squash or gourd. This would mean a ground hugging fruit, which would eliminate the problem of supporting a heavy fruit and would make a larger fruit of the same proportions somewhat more likely.

Attractive as this solution is as a compromise, I finally rejected it. The structures depicted do not seem to have been lying on the ground, and it seems to me that there are some features of the photograph that suggest manipulation.

I come back to my original position. It is my professional opinion that the objects in this photograph are nothing more than ordinary green beans, *Phaseolus vulgaris*, photographically enlarged and mated to a photograph of a wheelbarrow to give a false idea of scale — in other words a deliberate hoax.

This is my opinion and I do not imply that my various consultants necessarily concur with it.

I look forward to any comments you may have on the photos.

Cordially,

[REDACTED]  
Professor Emeritus of Biology

☺☺☺

Date: Mon, 09 Sep  
Subject: Giant Beans!

Dear [REDACTED],

Thank you for the copy of the letter to Joe Nickell. I have managed to get a copy of the original photo from the Herald and sent it on to [REDACTED], the bean man at Landcare Research (our Crown Research Institute which covers flora and fauna).

I think we finally have an answer! Firstly, Bill had not seen the photo before, but was working from my description and previous encounters when suggesting *Entada* as the possible identification. Now that he's had a chance to take a close look at it, he tells me that "the photo clearly shows a member of the Cucurbitaceae called *Lagenaria siceraria* (Mol.) Standley, which seems to have as many common names as it has shapes of fruits".

The commonest English name is bottle gourd, from its common use as a container for liquids. Bill adds that most forms have a flask or rounded shape and are much shorter.

"The elongated plant grown by Mr Maich is well-known in the Pacific region however, especially in the New Guinea region where they are commonly used by highland men as penis sheaths."

I recall seeing a National Geographic special which showed a rather bemused Prince Charles encountering a whole range of these while on a state visit to New Guinea. They weren't six feet long, but were certainly over-sized, presuming that New Guinean highlanders have the standard male anatomy....:-)

Bill concludes by saying "that there is not the slightest

reason for the photo to be a hoax", suggesting that you take a look at Charles B Heiser's "The Gourd Book" (1979), which illustrates different forms of bottle and other gourd and states that they can grow to 9 feet long.

"Such bottle gourds are of the long cylindric type featured in the photo of course. Incidentally, when growing, these

fruits are usually partly or completely hanging because the plant is a vine and scrambles over a fence, wall or other vegetation."

So I hope that this clears up the mystery of the great New Zealand bean hoax.

Best regards  
Vicki Hyde  
Chair-entity NZCSICOP Inc

## Sometimes They're Right

*A crown-of-thorns starfish can cause severe pain if the spines penetrate your skin. Local remedies include placing the offending animal over the injury, presumably in the belief that the sucker feet will pull detached spines from the wound.*

*The Snorkeller's Guide to the Coral Reef, Paddy Ryan*

"Sure, sure, sure," think I, flicking through the book prior to the resort's next snorkelling expedition. I was more interested in looking at the various kinds of tropical fish to be seen in Fiji's warm, shallow waters, but I resolved to be cautious of coral cuts, spiny-looking starfish and shellfish with toxic harpoons.

Plantation Island was a great place to snorkel from. Ten minutes in a boat had a dozen or so snorkellers out on the reef, parked on a sandspit just a few minutes leisurely swim from the fish, coral, sponges, starfish, sea lilies etc. Half the people splashing around were relatives — hardly surprising given that there were 26 of the Hyde clan staying at the resort as part of a long-overdue family get-together.

I was sitting in the sandy shallows chatting to my sister-in-law Cheryl and her daughter Renée as they took off their masks and flippers when Cheryl suddenly fell over, exclaiming that she'd stood on something. A quick look under the water and I spotted the culprit — "it's a sea urchin...hang on a minute...oh-oh...it's got arms... I think it's a crown-of-thorns starfish."

I recalled one of the other lines in Paddy Ryan's first aid section — "extensive tissue damage" — and went to tell the boat skipper to see if he knew what to do. Peter stood by to mark the creature while Cheryl limped up on to the sand.

It was a crown-of-thorns. The skipper picked it up carefully, flipped it over and flattened it out on the sand, and then gestured for Cheryl to stand on the moving mat of sucker feet. Her punctured toes were hurting by that time and we could see 3-4 black specks of broken-off spines within her foot. Fifteen minutes later and the spines were gone, though a couple of the sucker feet still clung to Cheryl's foot independently of the troublesome starfish.

It's all-too-easy to be skeptical about "local remedies" — and, in many cases, justifiably so — but one has to be aware that people *can* develop a useful knowledge base of how to operate in their own environment. It's just a matter of ensuring what sort of sucker is involved!

Vicki Hyde

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