

Raising a Skeptical Family

A prominent Skeptic charts the pleasures and perils of bringing up children in the New Age.

When I became head of the New Zealand Skeptics seven years ago, the irrepressible Denis Dutton had great delight in ringing the major newspapers to announce the fact that the organisation had elected someone who was female, of Maori descent and pregnant.

“How more politically correct can you get?” he crowed triumphantly. I don’t know about elsewhere around the world, but for some reason the New Zealand Skeptics are rarely seen as PC.

What Denis didn’t know was that the gravid situation provided me with a great excuse to pass back to him the many invitations to speak to seemingly innumerable numbers of Rotarians, Roundtablers, Lions, Great Elks and other assorted male mammalian service groups. There’s nothing surer than saying you’re pregnant to get an all -male group to back off hurriedly. I like to think of it as part of my personal crusade to single-handedly boost the Skeptical population of our country.

I must say that people seem to delight in predicting that my sons are going to grow up to be Sensitive New Age Guys. If they really want to make me nervous they add that David and Perry will be New Age, rugby-playing accountants who’ll end up working for Treasury. I can’t see it somehow – after all, they’re both fire signs ... though I do find it a bit worrying that my seven-year-old has started paying attention to the stock market reports and cheering every time Telecom drops a few more points.

Of course, his interest – and incidentally the reason why the bulk of this audience is male – is explicable. According to psychologist Bertrand Cramer, it all relates to early adolescent experimentation with gender-specific body parts. Most notably that manipulation which causes said body parts to move and retract, which, according to Cramer:

... presents the boy with a particular challenge in the development of the body image; this may contribute to his interest in machinery, physics and the like.

The boy’s better spatial sense relates to the greater use he makes of space in motor activity; the ability the boy has to perceive his sexual organ may also contribute to a better representation of space and to his better skill and greater interest in experimental science and mathematics.

One can only conclude from this that women should be over represented as mining engineers, tunnelers and speleologists....

I must confess to a certain degree of skepticism concerning the relationship between gross, so-to-speak, anatomy and an interest in science or its handmaiden, skepticism.

Early Skepticism

I attribute my interest in skepticism to my early fascination with science and science fiction, thanks to writers such as Arthur C Clarke and Isaac Asimov. In both their fiction and non-fiction, they posed questions and looked for answers; they acknowl-



Vicki Hyde, Chair-entity of NZ Skeptics, presented this paper at the Skeptics World Convention in 2000.

edged the sometimes tentative nature of their conclusions; they changed their minds when the facts built up against them. Their science was not the boring stuff of school textbooks, but involved real people trying to find answers to all manner of questions. They raised real concerns about where the world was heading long before anyone had started worrying about the H-bomb or the China Syndrome, Dolly the cloned sheep, or global warming.

Of course, by no means have all their predictions of the future been accurate ones; nor have the predictions made from respected scientists or the even more highly respected astrologers. Clarke knew this when he postulated his First Law which states that:

...when a distinguished but elderly scientist states that something is possible, he is almost certainly right. When he states that something is impossible, he is very probably wrong.

There are times when this Law is overthrown, as noted in Asimov's Corollary to Clarke's First Law:

...when the lay public rallies round an idea that is denounced by distinguished but elderly scientists, and supports that idea with great fervour and emotion, the distinguished but elderly scientists are then, after all, right.

And while I read Asimov and Clarke and Sagan and Feynman, I was also reading Velikovsky and von Daniken. I tried experiments with Rhine Zener Cards and fervently scanned the skies hoping for a close encounter of my very own. I drew up natal horoscopes in my astrophysics labs, and made more money from astrological charts than I ever did from writing astronomy columns.

But throughout it all, my tendency to ask questions, to try and look at all sides of an issue, stuck with me. That was helped by a goodly dose of debating at school and university level, probably one reason why I tend to be an equivocator.

And, if I want to get Freudian, I can blame my father. He was a

staunch nonbeliever in gravity, and we had lots of arguments about air pressure, centrifugal forces, Newton and apples. I'm still not sure to this day whether he was having me on or not, but it taught me never to accept things at face value.

A curious experiment

The latter is something we could all do well to remember. I think the most stunning example of this I've seen came from a speaker we had after our annual Skeptics dinner one year. We'd settled back in our chairs and were presented with the following conundrum:

Two men – James and John – are in a room. James is taller than John. John is taller than James.

How do you explain that? Just think about it for a moment. James is taller than John – John is taller than James.

Well, we had a room of 100 or so Skeptics, the most critical minds in the country, and the suggested explanations were legion, not to mention ingenious. I'm sure many of you have already thought of similar solutions to the ones we came up with:

James is standing on a box but John is actually taller;

the floor slopes;

James was taller but then some time passed and John grew taller than James;

the gravitational field is different in different parts of the room.

By the time we started to argue about the effect of singularities, the speaker called a halt and put us out of our misery. There were two obvious explanations that we had failed to come up with:

he was lying; or

he was mistaken.

More suspicion needed

We're just not taught to be suspicious enough. As a species, we're suckers for the confident con-man. It's laugh-

able when it's some guy with a toy submarine drumming up some tourism in a local loch; it's not so funny when we're asked to believe that another part of the human race is inferior based on their skin colouring or religion.

I find it sad that few people bother to ask questions. It's an indictment really of how little critical thought enters our lives, how rarely people are prepared to think, really think, about issues that may affect them. This holds as true for any activity in which we participate, whether it's debates on astronomy and astrology, alternative medicines and health reforms, or the way in which we choose our political representatives.

A need to question

I believe it all comes back to that need to question, and to encourage others to question. After all, we all start off with a questing spirit. Babies explore their world, and anyone who has dealt with small children is well aware of their apparently endless store of questions about how the world works.

Somewhere along the way, many people lose that desire to know, to broaden their horizons. My mother, a primary school teacher for many years, reckons this loss happens when children start to ask questions which are beyond the scope or training of their teacher. Deceptively simple questions such as "why do clouds float?" and "what makes this light work?" reveal the questioning nature of a potential scientist and – all too often – the adult's lack of knowledge.

Some people, whether parents or teachers, feel threatened by this. It's seen as disruptive, irrelevant, potentially disrespectful. It gets in the way of the lesson plan, or interrupts the structured bedtime routine. Yet it is these very aspects that make children so receptive to science, so able to question.

Science writer and physics professor Chet Raymo identified the habits of mind which children have at their most creative, and which are mirrored in the world of science:

- curiosity

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- voracious seeing
- sensitivity to rules and variations within rules
- fantasy

He mourned having to teach undergraduates whose image of science was of a dull, dry, boring subject devoid of interest, to be endured and then forgotten in the interests of more lively past-times such as astrology or parapsychology.

Instead, he said, we need to convey the adventure stories that make up science, the fantasy that forms it. Small wonder that he so often cites children's literature, whether the works of Dr Seuss or Maurice Sendak.

Raymo says:

In children's books we are at the roots of science - pure childlike curiosity, eyes open with wonder to the fresh and new, and powers of invention still unfettered by convention and expectation.

So don't despair if your kids are into the latest SF, *Goosebumps* or *Harry Potter*. That doesn't mean that they will grow up to be would-be wizards or psychic investigators. What they will learn is that there are more things in the world, Horatio, than can be found within the pages of a school textbook, and that's never a bad thing.

My kids first started asking about werewolves and ghosts after encountering *Scooby Doo* on television. I think *Scooby Doo* has been around long enough that most of us will have watched him and his gang of kids who, every episode, unmask the villain who is dressed up in the wolf suit or the white sheet to frighten or con someone. I hadn't thought about *Scooby Doo* as an agent of skepticism, but have to wonder about the creators of this show.

TV science

There are plenty of children's science shows produced all over the world, but few take a direct look at things of a skeptical nature. My all-time favourite has to be *Oi* which, I am proud to say, was produced in New

Zealand, and which has won awards internationally. In each 30 minute show it had a segment which was pure skepticism.

If the New Zealand Skeptics ever get a major bequest, I'd like to put together a *Greatest Hits of Skepticism* using material from *Oi*.

I've had some small measures of success in subverting my own children. Davey was barely three when we were in a local bookshop and he paused before a display of that bastion of Australian culture, *Bananas in Pyjamas*.

"We don't buy that," he announced. "Why?" I asked. "Because it's commercialization." The lady next to us was startled but I was delighted - I'd been teaching David to be suspicious of the ploys of marketers. My kids know that the sweets at the check-out counter are a trick and are determined not to be fooled. They may look longingly at the chocolate bars, but it means I don't get the whining which can be clearly heard emanating from the other aisles.

We often talk about what's real and what's not, whether it's discussing Pokemon, the TV news, Halloween, dinosaurs or whatever has taken their fancy. My children are used to me equivocating - I'm happy to preface a response (note - not an answer, but a response) with "it depends", "we're not sure but..." or "what do you think?"

Guide for young Skeptics

Over the past couple of years, David and Perry have read and reread their way through Dan Barker's guide for young Skeptics *Maybe Yes, Maybe No* which sets out the basic rules of science:

- check it out
- do it again
- try to prove it wrong
- keep it simple
- it must make sense
- be honest

and which concludes "it is okay to say 'I don't know'".

That's a phrase I use a lot with my

children, but I usually follow it up with "let's see if we can find out".

Delight in discovery

You see, one of my greatest delights is discovery - new facts, new words, new ideas - and I want to do my best to encourage that delight in my children.

It doesn't take a good reference library or Internet access, though we're lucky to have both available at home. It can be something as simple as a walk to school.

We talk about what the weather is doing, how clouds form, the difference between fog and smog. We peer cautiously at the various items of roadkill, and consider how death and decay is a part of life. The late arrival of the Sun over the sea in winter is a practical reminder of Earth's movement around our star. The changing bird populations on the estuary mirror changes in the seasons, as do the annual cycle of the tomatoes grown in the large glasshouse on the corner.

I get pure joy when I ask David why he thinks such-and-such happens and get a gratifying moment of thoughtful silence before he makes the attempt to explain. It's not a matter of getting things "right", though it's a delight when he does. It's more a matter of virtually seeing his thought processes at work, of experiencing that fresh interest when all is new.

We do get odd looks from other pedestrians who are busy hurrying on their way. They see us examining the death mask of a hedgehog by the side of the road or stirring an oily puddle with a stick, but they don't see our joy of discovery as we discuss why a hedgehog's teeth are so sharp or what makes the colours on the puddle's surface.

There's an adage that one should "stop and smell the roses" - but you can do so much more. Why do the roses smell like that? Why aren't roses shaped like cornflowers? Why do they have thorns?

We mightn't be able to answer every question, but it's the journey to those answers that provides the excitement. It's a journey on which, as a parent, I am privileged to be accompanied.

