Regulation Round-up
How Good are the Enforcers?

Scientists & Soldiers
Monster and the Media
Skeptical Groups in Australia

**Australian Skeptics Inc – Eran Segev**
www.skeptics.com.au
PO Box 20, Beecroft, NSW 2119
Tel: 02 8094 1894; Mob: 0432 713 195; Fax: (02) 8088 4735
nsw@skeptics.com.au

Sydney Skeptics in the Pub – 6pm first Thursday of each month at the Crown Hotel, cnr Goulburn and Elizabeth Streets in the city (meeting upstairs)

Dinner meetings are held on a regular basis.

**Hunter Skeptics – John Turner**
Tel: (02) 4959 6286  johnafturner@westnet.com.au

Meetings are held at the Club Macquarie, Lake Road, Argenton on the second Thursday of each month, excepting January, commencing 7.00pm, with a guest speaker or open discussion on a given topic. Visitors welcome. Further information from the secretary at: kevin.mcdonald379@bigpond.com

**Australian Skeptics (Vic) Inc – Chris Guest**
GPO Box 5166, Melbourne VIC 3001
Tel: 1 800 666 996  vic@skeptics.com.au

Skeptics’ Café – Third Monday of every month, with guest speaker, La Notte, 140 Lygon St. Meal from 6pm, speaker at 8pm sharp.


**Borderline Skeptics Inc – Laurie Smith**
RSB 11 Callaghhan’s Creek Boxes, via Tallangatta VIC 3701
Tel: (02) 6072 3415

Meetings are held quarterly on second Tuesday at Albury/ Wodonga on pre-announced dates and venues.

**Queensland Skeptics Association Inc – Bob Bruce**
PO Box 3480, Norman Park QLD 4170; www.qeskptics.org.au
Mob: 0419 778 308  qskeptic@bigpond.com

Meetings with a guest speaker on the last Monday of the month from February to November at the Redbrick Hotel, 81 Annerley Road, South Brisbane. Dinner from 6pm, speaker at 7.30pm.

Qskeptics eGroup - www.egroups.com/list/qskeptics

**Gold Coast Skeptics – Lilian Derrick**
PO Box 8348, GCMC Bundall, QLD 9726
Tel: (07) 5593 1882; Fax: (07) 5593 2776
lderrick@bigpond.net.au

Contact Lilian to find out news of more events.

**Canberra Skeptics – Lauren Cochrane**
PO Box 555, Civic Square ACT 2608
http://www.canberraskptics.org.au  Tel: 0408 430 442
mail@canberraskptics.org.au (general inquiries), arthwollipot@gmail.com (Canberra Skeptics in the Pub).

A free monthly talk, open to the public, usually takes place on the 1st Saturday of each month at the Lecture Theatre, CSIRO Discovery Centre, Clunies Ross Rd (check website for details of the current month’s talk). Skeptics in the Pub gather at 1pm on the third Sunday of each month at King O’Malley’s Pub in Civic. For up-to-date details: www.meetup.com/SocialSkepticsCanberra/

**Skeptics SA – Laurie Eddie**
52B Miller St Unley, SA 5061
Tel: (08) 8272 5881  laurieeddie@adam.com.au

Thinking and Drinking - Skeptics in the Pub, on the third Friday of every month. Contact nigeldk@adam.com.au


**WA Skeptics – Dr Geoffrey Dean**
PO Box 466, Subiaco, WA 6904
Tel: 08 9341 4538  info@undeceivingourselves.org

All meetings start at 7:30 pm at Grace Vaughan House, 227 Stubbs Terrace, Shenton Park

Further details of all our meetings and speakers are on our website at www.undeceivingourselves.org

**Hobart Skeptics – Leyon Parker**
PO Box 84, Battery Point TAS 7004
Tel: 03 6225 3988 BH, 0418 128713  parkerley@yahoo.com.au

Skeptics in the Pub - 2nd Monday each month, 6.30pm, Ball & Chain restaurant, Salamanca Place

**Darwin Skeptics – Michelle Franklin**
PO Box2027 Humpty Doo NT 0836
Tel: 0408 783 145; www.facebook.com/group/darwinskeptics/ Darwinskeptics@gmail.com

Meeting to be announced - see Facebook page for details
Social media is ubiquitous, and is becoming even more ubiquitous (if there is such a concept). It is likely that you, your family, your friends, and even your ‘friends’ are right now Googling, surfing, tweeting, Facebooking, blogging, pintersting, instgramming, tumblrising, yelping, qyping, the list goes on and on. For what it's worth, about two-thirds of access to social media is via portable devices (phones and tablets), so more social media interaction is done in the wide open spaces (or buses and trains) than in the dark confines of an office or bedroom. Most social media outlets sit in one of several categories (sometimes more than one): crisis, support, product, sales, marketing, PR, community and just general finding and sharing information and opinions. Social media hasn't been called a “phenomenon” for some time; it's now the norm for most people between the ages of 2 and 135.

There are, of course, good sides and bad sides to every phenomenon (we love that word), and the same applies to social media. On the good side, never before have so many people had so much access so quickly to so much quality information. On the bad side, never before have so many people had so much access so quickly to so much crap. Distinguishing between the two is the problem.

In this issue of The Skeptic, we have a look at a number of examples of both sides of the use of social media.

A news report on the debunking of a supposed photo of a UFO shows that the process was done online using a collaboration of people who probably didn’t know each other that well (or at all) – quick, painless and definitive.

There is also a detailed investigation of the Bigfoot phenomenon and specifically on how technology and the Information Age has progressed this field to new heights (or depths).

Of course, there is our long-running Readers Indigestible series looking at the wonderful world of woo-ish websites. These range from the amusingly strange to the seriously worrying.

Which brings us back to the need to be able to discriminate between what’s useful and what’s not.

Over the last few years in the US there has been an online battle between various parties over claims and counterclaims of sexual harassment and intimidation within the Skeptical community. People are empowered by social media to make statements online that are extremely hurtful, regularly vituperative, often without any substantiation and that verge on (if not cross into) the defamatory. This often scathing battle would not happen if social media did not exist; there would just not be the opportunity for many of the players to spread their views and gossip to such a wide audience, or to any audience at all, which would not be a bad thing.

But it’s not all distressing news, of course. Sometimes there is a good end to a bad side.

In this issue we run a news item on the result of work by 2014 Skeptic of the Year Peter Tierney – the resignation of the president-elect of the Chiropractors Association of Australia. Dr Helen Alevaki had admitted on her Facebook page to having made “sneaky” visits to a Melbourne maternity hospital to perform chiropractic treatment on a newborn baby. The fact that she would happily do such an admission is interesting. The fact she would do it in ‘public’ is downright weird. She has paid the price for her double indiscretion – doing it, and talking about it. And Peter revealed these shenanigans on his own blog.

The revenge of social media. ■

- Tim Mendham, editor
AUSTRALIA: Dr Helen Alevaki, the president-elect of the Chiropractors Association of Australia, resigned at the end of July from that position as well as her place as member of the CAA Board.

Dr Alevaki admitted making “sneaky” visits to a Melbourne maternity hospital - the name of which was not disclosed - to perform chiropractic treatment on a newborn baby.

According to ABC News, Dr Alevaki had been under investigation by the Australian Health Practitioner Regulation Agency, but is being allowed to continue to practice as a chiropractor.

CAA CEO Dr Matthew Fisher said the board accepted her resignation in the wake of the recent revelations about her conduct.

Peter Tierney, the Skeptic of the Year for 2014, investigated Alevaki’s activities, including her use of a closed Facebook group, to reveal she had made the visits. He first published his findings on his website Reasonable Hank in September 2013. This was a follow-up to earlier investigations of another chiropractor, Catherine Langford, who posted a picture on her Facebook page of herself “adjusting” a neonate in the North Eastern Community Hospital in Adelaide.

Dr Fisher said there had been a complaint heard by the health regulator with regard to a statement that Dr Alevaki had made about entering a hospital at the request of a parent to provide some treatment to a child.

“This was heard by AHPRA [the Australian Health Practitioner Regulation Agency] and subsequently some undertakings were made for Dr Alevaki with regard to continuing professional development. “Dr Alevaki is a well-respected practitioner – she has recognised that this was an error of judgement.”

Respected she might be, but the CAA website quickly wrote her out of history. For a former president-elect and board member, she is nowhere to be found on the site. There were no news releases on the site concerning Dr Alevaki’s resignation.

On his website, Tierney said: “I think Australian chiropractic just dodged a public health bullet with Alevaki’s resignation. Let’s see if they learned anything. Judging by the growing Australian membership of the [anti-vaccination US-based] International Chiropractic Paediatric Association I doubt it. And judging by the continued hubris of the subluxationist/vitalist wing of chiropractic, I doubt it even more.”

Evidence misleading
On a side issue, the CAA is also concerned about the activities of other industry members.

In the August 2015 issue of its monthly communiqué, it stated that “The Board holds ongoing concerns about advertising by the profession that may be seen as misleading and deceptive. In particular, there have been a number of concerns raised about chiropractors’ advertising that indicates that there may be a lack of understanding of evidence and evidence-based practice.”

Awards for Skeptics

AUSTRALIA: Australian Skeptics congratulates Dick Smith, patron of the organisation, for being awarded a Companion of the Order of Australia (AC) in the recent Queen’s Birthday honours list.

The AC is awarded for eminent achievement and merit of the highest degree in service to Australia or to humanity at large. Apart from the recently re-instituted Knight and Dame awards, the AC is the highest Australian award that can be issued to an individual.

In the same round of awards, Roy Arnott, long-standing treasurer for the Victorian Skeptics, was awarded the Medal of the Order of Australia (OAM). He received the honour for his service to the preservation of military history and to veterans.
Skeptics in the Territory

AUSTRALIA: A new group for Darwin Skeptics has been established. Those interested in taking part should contact Michelle Franklin at darwinskeptics@gmail.com.

Other contact avenues include Facebook (www.facebook.com/groups/darwinskeptics/), mobile (0408 783 145) and mail (PO Box 2027, Humpty Doo, NT 0836).

Details of events and meetings will be announced as soon as possible.

NSW’s new State fossil

AUSTRALIA: A fish found near Canowindra NSW has become the state’s new fossil emblem. *Mandageria fairfaxi* is a 1.7 metre long fish fossil and dates from the Devonian period, about 370 million years ago. It was found during a 1993 excavation managed by palaeontologist and long-time Skeptic Alex Ritchie.

The deposit where the fossil was found contains the remains of thousands of freshwater fish, many new to science.

The best of the fossils so far recovered are now on public display at the Age of Fishes Museum near Canowindra. *Mandageria fairfaxi* is named after a local creek and commemorates the contribution of publisher James Fairfax in supporting research into the fossil fish. Australian Skeptics has also given financial support to the museum.

The full story on the fossil and the long history of ensuring the deposit’s proper development – there have been no further excavations since the original one in 1993 – will be published in the next issue of *The Skeptic*.

Putin’s face in space

USA: An 11-second YouTube clip seems to show Vladimir Putin, the Russian president, floating above New York.

Sheryl Gilbert was on board a tourist bus when she captured footage of a flock of birds swarming around the New York skyline. What made the clip impressive was the fact the birds flew into a formation that resembled a human face – that of Putin.

Since being uploaded to YouTube, the video has gained a lot of attention and has been viewed more than a million times. Many said the video as a fake, however a number of Russian YouTube users think the event is a message - “This is a hint: imagine what we can do during the war, if we can now make your birds fly resembling the face of our president,” commented one user.

Ireland’s Nessie resurfaces

IRELAND: *The Irish Times* reports that an image of County Clare’s sea-serpent - Victorian Ireland’s equivalent of the Loch Ness monster - has resurfaced after 144 years.

The artist’s impression of the bizarre ocean creature, allegedly spotted off the coast of the resort village of Kilkee, has been found lurking in the depths of a London archive.

The ‘monster’ was the subject of various reported sightings in the 19th century, including one in 1850 when it was seen, improbably, “sunning itself near the Clare coast off Kilkee”.

The most notable sighting was in September 1871, when the “large and frightening sea monster” was seen by several people, who “all had their nerves considerably upset by the dreadful appearance of this extraordinary creature”.

The story first appeared in the *Limerick Chronicle* and quickly caught the attention of Fleet Street, where even the *London Times* commented on the appearance of the “fabled sea serpent in Ireland”.

But the most vivid account was provided by *The Days’ Doings*, an illustrated newspaper. Their artist’s impression of the scene, published in October 1871, has come to light during the digitisation of an archive of Victorian illustrated newspapers by the Mary Evans Picture Library in London.

The accompanying story described how a “party of strangers staying at Kilkee, composed of several ladies and some gentlemen - one of whom is a well-known clergyman in the north of Ireland” had been out walking, at a place known as the Diamond Rocks.

“All of a sudden, their attention was arrested by the appearance of an extraordinary monster, who rose from the surface of the water about seventy yards from the place where they were standing. It had an enormous head, shaped somewhat like a horse, while behind the head and on the neck was a huge mane of seaweed-looking water; the eyes were large and glaring, and, by the appearance of the water behind, a vast body seemed to be beneath the waves.”

The story also appeared in several other British and American newspapers.
Conspiracy cruise … all at sea

USA: For those conspiracy theorists who tend to bore the pants off other tourists on holiday tours, there is now a cruise devoted just to them.

The Conspira-Sea Cruise leaves from Los Angeles next January for a seven-day cruise devoted just to them.

The “Holistic Cruise and Seminar-at-Sea” will feature presentations on a bevy of topics: “During this incredible, mind-blowing, truth-telling, spiritually enriching event, we will do our best to uncover the truth about things conspiratorial, including [hold your breath]: “GMOs, Monsanto, bee colony collapse, ecology, global warming, fracking, HIV, autism, big pharma, medical suppression, vaccinations, fluoridation [sic], government corruption, forbidden archeology, World Bank, martial law, Skull and Bones, JFK, cover-ups, September 11, Star Wars agenda, nuclear plants, chemtrails, HAARP, crop circles, MK-Ultra, Fukushima [sic], NASA, Bilderbergs, military industrial complex, pentagon [sic], Waco, Malaysia 370, Pan Am 103, TWA 800, Gulf Oil Spill, Halliburton, Obama, Vatican, New World Order, Area 51, Iron Mountain, psyops, population management [sic], subliminal ads, Nibiru/Planet X, technology suppression, identity chips, and so much more.”

If that weren’t enough, the cruise will also “explore how to heal ourselves and others, and to attain self-mastery and greater integrity through: Spirituality, meditation, affirmation, prayer, yoga, manifestation, self-development, holistic health, alternative lifestyles, organic foods, healthy living, wellness, self-sufficiency, prosperity, sustainability, freedom, human rights, discernment, wisdom, awakening, longevity, inner guidance, and inner peace.

“The purpose of this cruise is not about being a victim of conspiracies. It is about taking back our power from corrupt and greedy institutions, attaining true self-authority, and realising our genuine Self behind the masks. It is about discovering the truth, taking command of our lives, and attaining genuine inner realisation.

“This cruise will not only uncover the lies. It will show us the truth. As we dispel [sic] the darkness, and shine the light of wisdom, we enter the true light of consciousness.”

David ‘Orac’ Gorski, writing in the Science-Based Medicine website, says that when he first saw a link to the cruise, “I really thought that it had to be a joke. There really couldn’t be a cruise like this, could there? Then I looked at the company organising the cruise, Divine Travels, which advertises itself as a ‘gateway to spiritual adventures’, and I had to admit that this Conspira-Sea Cruise is legit and fits right in with Divine Travels’ other cruises, which are loaded with woo, such as a tour of Egypt with Cindy Reed, an energy/spiritual healer, a New Age retreat where you can learn ‘spiritual healing’, and more.”

Speakers lined up for the cruise include anti-vaccinationists Andrew Wakefield and Sherri Tenpenny.

Gorski says he is disappointed there are no cryptozoology or Bigfoot mavens.

Colin Keay - Obituary

AUSTRALIA: Sadly, we report the death of Colin Keay (2/2/1930 – 25/08/2015), one of the main instigators of the Hunter Skeptics, serving as President of that group for many years, as well as an early and regular contributor to The Skeptic. Our deepest sympathies go to Colin’s wife Myra and the rest of his family.

Former executive officer and Australian Skeptics Inc president, Barry Williams writes:

Colin Stewart Lindsay Keay, born in New Zealand, was an astronomer and, from 1965 until his retirement in 1993, a senior lecturer then an associate professor at the Physics Department of the University of Newcastle. His work, particularly in investigating near earth asteroids and space junk, earned him many accolades but one that afforded him much pleasure was in 1997 when the International Astronomical Union named the asteroid Minor Planet 5007 Keay in his honour.

In his later career he fought a battle to have recognised a phenomenon known as geophysical electrophonics whereby some people claim to hear sounds associated with passing meteorites and auroral displays. The general scientific consensus once was that this was purely a psychological effect but, due in no small part to Colin’s determined research, it is now recognised as a genuine physical phenomenon, though its mechanisms are still not fully understood.

In 1987 Colin formed the first regional Skeptics group, the Hunter Skeptics, in Newcastle and such was his enthusiasm and drive that his group organised successful annual Australian Skeptics National Conventions in 1992, the first such to be held outside a state capital, and again in 1997. Colin also served on the NSW Skeptics committee for many years, travelling to Sydney for each monthly meeting and rarely missing one.

Colin was a great bloke and a fine scientist, with a dry sense of humour: when responding to our congratulations at having an asteroid named in his honour, he said “It’s certainly better than having a haemorrhoid named after me”.

Farewell old friend, you will be sadly missed.
Let me tell you a fun story. It involves me and awesome others, solving the origins of a rather obvious fake, that recently ran through Facebook, Twitter and other sites. A good reminder that you can’t take anything for granted and that sometimes a little coincidence, and knowing the right people in the right places, can solve a lot of internet fakery.

It turns this story from “it’s obviously a reflection” into “let me show you the room this picture was taken from”.

I noticed a Facebook post that was shared by my skeptical friend, Tammy. She was rightly mocking of the post, which claimed that “This photo was taken in Australia, get it out there as Facebook are trying to remove it.” We were sure this was the reflection of a lampshade.

Wait a second… 314,711 shares on Facebook?! Are you serious? It’s clearly a reflection!

David of Skeptical Blog’s online hunt for a mystery UFO

Well, I assumed it was. I’ve seen skeptical bloggers do this over and over again. Often with ghost stories and sightings, and we never actually get to the bottom of the mystery. Often there’s nothing else you can do, as fakes are only known to the person committing them. But this felt like the other option; not fakery, but a genuine picture with a strange addition.

Yes, prior plausibility leaves you with the almost certainty that isn’t a UFO. But, “It looks like a ceiling light” wasn’t good enough for me. I wanted to know where in Australia the image was taken. People were genuinely debating this picture on Facebook, twitter and other social media sites. I wanted to know this time, rather than just brushing it off as the non-UFO it seems to be.

I took the image to Google reverse image search, which eventually lead me to a thread on the discussion site Reddit. Just to add, Google image search is often a skeptic’s best friend and shouldn’t be forgotten when dealing with pictures. Reddit is not familiar territory for me, but under the image I found this: “I believe she said it was Jackson Hole, Wyoming.”

Well, that’s worth looking into. I’d just assumed that it was Australia. An odd detail to change, but that just goes to show you can’t take these things at face value! I certainly had no reason to doubt it. Australia does exist!

I checked Jackson Hole, Wyoming on Facebook. I just wanted to get an idea of the place. I’d never heard of it before. What I wasn’t expecting was for one of the few people in the world who I admire to actually live and be taking a work sabbatical there, Dr Rachael Dunlop.

Dr Rachie helped me immensely. For starters, by finding the location based on the initial image. She enlisted the help of a local, James Metcalf, who knows the area well.

It didn’t take a great deal of work to figure this all out, although it wouldn’t have been possible without Dr Rachie. Despite that, this was still being shared like crazy on Facebook.

Please, people. This is not only an obvious fake (not real, anyway), but between me in England and Dr Rachie in Jackson Hole, Wyoming, we’ve shown how much of an erroneous conclusion “UFO” is for this image. Don’t believe everything you read on Facebook, obviously!

With a bit more free time and a helpful lead from a friend, I trawled through Google images to find the exact location. Which has been found! The friend put me onto the right track with an image from the area, but the exact location wasn’t unambiguous. The ‘UFO’ looked exactly like a ceiling lamp in the upper floor of the Signal Mountain Lodge’s Peaks Restaurant.

As a side point, Facebook wasn’t going to remove a picture like this. Why would they? No crime has been committed, no one is being directly harmed. I say “directly” because sharing images like this and believing them on face value, clearly harms our collective intelligence.

‘David’ is a regular contributor to Skeptical Blog, www.skeptical.gb.net/blog/.
Lucky 13 IN Vegas

Richard Saunders reports on TAM 13

Each July since 2008 I have been lucky enough (well, not all luck) to find myself in the modern wonder that is the city of Las Vegas. It’s not the sights, the painted on glamour or the faint promise of winning the big one that draws me back year after year, it’s a meeting ... but no ordinary meeting, an Amazing Meeting put on by the James Randi Educational Foundation.

Regular readers of The Skeptic and indeed listeners to The Skeptic Zone podcast have followed my adventures at this meeting over the past 7 years which includes my being part of the Million Dollar Challenge Committee (more on that later).

This year the meeting was TAM13, being the number of official Amazing Meetings since the first on in 2003. (This number does not include a mini TAM and TAMS in the UK and TAM Australia.) After six years the event was moved from the South Point Casino, located far from the centre of the city, to the Tropicana Casino that is right in the heart of ‘the Strip’, a stretch of road dominated by endless towering mega hotels, replicas of famous landmarks such as the Eiffel Tower and the Statue of Liberty, and a passing parade of the hopeful, the bewildered and the poor. (James Randi remarked to me that all the wonder you see in Las Vegas was paid for by losers.) Whatever you think of the system that created it, Las Vegas is something that should be on your bucket list.

Leaving behind the attractions and temptations of Sin City, TAM this year had a particular meaning and importance. It was billed as being a tribute to the life and works of Randi and on that front it did not disappoint.

Much of the four days of the event were given over to tributes to the man, many from eminent scientists such as Bill Nye. Randi graciously accepted all the gushing accolades and was genuinely moved. As he is fond of saying, it’s the sort of thing money cannot buy. We were also treated to talks on the life and works of Martin Gardner, including one by his son Dr Jim Gardner.

Even when Randi was not in the spotlight, the meeting was of the high standard that we have come to expect. Many interesting panel discussions and workshops, live performances and a stellar line-up of speakers, with names such as Dr Harriet Hall, Ray Hyman, Dr Eugenie Scott, Jamy Ian Swiss, Simon Singh and The Skeptics’ Guide to the Universe podcast on the bill. I shared an information table for The Skeptic Zone and Australian Skeptics just outside the main theatre with Chris Guest, the president of Victorian Skeptics. We lost count of the number of people we met and gleefully gave away many back issues of The Skeptic magazine. We were joined by Lauren Cochrane, the president of Canberra Skeptics, who also spent time meeting many of the delegates. I find this to be a most enjoyable experience and I have made many friends during my hours at the table. It is also a thrill to meet listeners of my podcast from all over the world.

As was the case at many of the recent TAMS, this year we held a live show/demonstration test for the Million Dollar Challenge. This time it was the claims being made about the AudioQuest Vodka Ethernet Cables that caught our attention. In a nutshell, we wanted to see if by using these expensive cables, as opposed to cables costing about a tenth as much, one could hear an improvement, significant or otherwise, in digital music. Normally we have a claimant present to do the test and an agreed protocol. This time these two factors were lacking and so we cannot say this was an official test or challenge hence “demonstration” was more appropriate. Nevertheless, the Vodka Cables, under our testing conditions, did not support the hype.

While it is hoped that we will once again meet in the middle of the desert in 2016 for TAM14, this has not yet been officially announced and indeed the James Randi Educational Foundation itself is undergoing structural change owing to the retirement of Randi himself. But if I were a betting man ...
Readers’ indigestible

Tim Mendham looks at those ‘other’ publications, where skepticism is a dirty word ... sometimes.

This issue, we look at two more examples of the wonderful world of paranormal publishing. One is a long standing example of the diversity of topics that come under the New Age banner. The other is classic paranormal looking for scientific credibility through seeking out definitive evidence in one more-focused area. Both are firm believers in their topics. Read on.

NEXUS

Subtitled “New Times”, this is an Australian bi-monthly publication ($8.95 an issue) now in its 23rd year. That’s a pretty impressive record for a magazine lodged well and truly in the often ephemeral world of New Age mysticism and conspiracy theorising.

Perhaps its longevity is explained by its sub-subtitle: “The world’s No 1 magazine for alternative news, health, future science and the unexplained”. And the sub-subtitle pretty well sums it up – something for everyone.

The magazine’s underlying premise is summed up in a ‘statement of purpose’: “Nexus recognises that humanity is undergoing a massive transformation. With this in mind, Nexus seeks to provide ‘hard-to-get’ information so as to assist people through these changes. Nexus is not linked to any religious, philosophical or political ideology or organisation.”

OK, we’re not told what the transformation is or how it will manifest itself, just that it’s massive. We’ll have to take their word for it.

Government conspiracy plays a big part in the transformation, as it occupies a reasonable proportion of the magazine. In the issue under review, these include a cash-free society proposal from “bankers, political figures and businessmen”, described as “an Orwellian plan”, the HPV vaccine, big data, and smart cities (“the next phase in the 21st century surveillance grid”).

But let’s just quote the headlines for the main articles, which indicate what a mixture of topics are covered and the tone they take:

“So Much More than Nuclear Weapons”, about a secret agency called the Deutsche Verteidigungs Dienst (DVD - German Defence Service) which was set up in the 1920s “as a coalition between the US Bush family and the ‘Hitler project’”. This group has apparently been associated with paedophile networks, nuclear weapons funding, the 9/11 attacks and high-level looting, which is a pretty eclectic bunch to start with.

“The Pharmaceutical Deception Exposed”, which is pretty self-explanatory – nutrition and positive lifestyle changes versus pills and drugs.

“Aluminium Poisoning by Clandestine Geoengineering”, which involves a “covert planetary geoengineering project to counter alleged global warming” which uses coal combustion fly ash which in turn liberates highly mobile aluminium which is believed to cause widespread neurological disease and environmental damage. Not nice, in other words. It also seems to involve some sort of chemtrail.

“Health and Survival in a Radioactive World”, being from nuclear power plants. “A healthy diet with essential minerals can help prevent the uptake of radioactive elements.”

“The Great Pyramid of Giza and the Queen’s Chamber Shafts: a Chemical Perspective”. You need a bit of chemistry knowledge to follow this one, but it involves hydrochloric and sulphuric acid, green vitriol, and sal ammoniac. The conclusion proposes that “in the southern shaft of the Queen’s Chamber H2SO4 was the acid used, not HCl. In the northern shaft of the Queen’s Chamber, a salt (saline) mixture of NH4Cl and ZnCl2 was used. It has been illustrated that H2 gas could be generated from both the southern (H2SO4) and northern (NH4Cl-ZnCl2) shafts using the chemicals described in this paper.”

And that’s just in a review of a book. We’re not sure how many of Nexus’ readers (or even ours) will follow this, but at least there doesn’t seem to be a suggestion that “aliens did it”.

“Is There a Fourth Phase of Water?”

A discussion of the (debunked) Russian theory of polywater.

“Extraterrestrials and Intraterrestrials in Islam”. This could have been an interesting study of mythological creatures within the
The article on Bigfoot in this issue of *The Skeptic* looks as much at the impact social media has on the promotion of the paranormal as it does at the hairy monster itself.

Two of the websites it looks at are Sasquatch Chronicles (www.sasquatchchronicles.com) and the North American Wood Ape Conservancy (NAWAC, www.woodape.org). These are covered in depth in the article. But there are other sites … many others.

Search Google and you get about 23,300,000 results in 0.43 seconds. One of the sites among those listed on the first page of the search does concern a boxing match between Antonio “Bigfoot” Silva and Mark “No Nickname” Hunt, which may or may not take place in Melbourne on November 14. But that’s not what we’re concerned with here.

Top of the Google list is the Bigfoot Field Researchers Organization (BFRO – www.bfro.net). According to the site, the BFRO is “a virtual community of scientists, journalists, and specialists from diverse backgrounds” who are engaged in projects, including field and laboratory investigations, designed to address various aspects of the Bigfoot phenomenon. “As a result of the education and experience of its members and the quality of their efforts, the BFRO is widely considered as the most credible and respected investigative network involved in the study of this subject.”

The overall mission of the BFRO is “a virtual community of scientists, journalists, and specialists from diverse backgrounds” who are engaged in projects, including field and laboratory investigations, designed to address various aspects of the Bigfoot phenomenon. “As a result of the education and experience of its members and the quality of their efforts, the BFRO is widely considered as the most credible and respected investigative network involved in the study of this subject.”

It goes on to say that “The overall mission of the BFRO is multifaceted, but the organisation essentially seeks to resolve the mystery surrounding the Bigfoot phenomenon, that is, to derive conclusive documentation of the species’ existence. This goal is pursued through the proactive collection of empirical data and physical evidence from the field and by means of activities designed to promote an awareness and understanding of the nature and origin of the evidence.”

A long article on the famous Patterson-Gimlin Bluff Creek film looks at claims that it is a fake, and the perpetrators of those claims. In particular, it takes a swipe at Bob Hieronimous, who said that he was the “man in the suit” featured in the film. There is much made of Hieronimous’s character – lazy, envious, avaricious – and compared with that of Gimlin – hard working against great adversity, definitely not self-promotional, and all-round good guy. The play-off between these two is central to the article, but it also takes a look at media reporting and the range and action of those commentators calling the film – or the monster in it – a fake. The authors come down 100% on the side of its being genuine.

There is much info on the site: recordings of howls; lists and an interactive map of sightings, (including one from Australia featuring Skeptic Paul Willis going Yowie hunting for an ABC Catalyst story), a form to report sightings, and many discussions of a wide range of topics. It is well worth a look. But always keep in mind that the authors of the site have no doubt that the hairy hominid exists: “To many, the facts, taken together, suggest the presence of an animal, probably a primate, that exists today in very low population densities. If true, this species, having likely evolved alongside humans, became astonishingly adept at avoiding human contact. … The BFRO, and its members, take [that] view.”
Speaking at the Australian Skeptics National Convention in 2011, the then national manager of the Therapeutic Goods Administration, Dr Rohan Hammett, explained that the TGA is hamstrung by regulation and lack of resources.

He compared the TGA’s staff numbers of about 610 FTE (full time equivalent) and a budget of A$113m with that of the US Food & Drug Administration (about 17,000 people and a budget of US$4 billion), and Canada’s Health Products & Food Branch (2100 people and C$289m). And this despite the fact that all groups monitor roughly the same number of products – about 64,000.

He said that decisions on which particular products to investigate more closely were based on the risk ‘continuum’ – the higher the risk of harm, the increased level of TGA regulatory interest. Complementary medicines were low down on the list, he said, while prescription medicines and class III medical devices (cardiac stents, pacemakers) were high.

Taking part in the same panel at the 2011 convention was Dr Ken Harvey, one of Australia’s leading campaigners against shonky medical products. Over the years, he has had an often tempestuous relationship with the TGA and its associated organisation, the Complaints Resolution Panel, which judges on complaints about advertising and general published information on therapeutic goods. Not long before the convention, Harvey had served

Tim Mendham looks at the regulators of alternative medicine in Australia, and the activists who often spend blood, sweat and years dealing with them.
on the Australian National Audit Office Transparency Review Panel, so he knew the organisation well from both inside and out. His assessment was blunt: it needs teeth.

2011 hadn’t been a particularly good year for the TGA.

In July, the ANAO review found the organisation had been conservative in its actions and that it could do a lot more to keep the public informed of its deliberations and processes.

With a suggestion that the TGA was serving the industry rather than end-users, the report said that “It is necessary for the TGA to recognise that it serves multiple stakeholders and that it must adapt its communication strategies accordingly. Consumers and health practitioners have as much interest in therapeutic goods as the industry that produces and markets those goods.”

The TGA suffered another hit in 2011: the final settlement of a class action brought against it following its actions against Pan Pharmaceuticals (see separate article in this issue). $67.5 million was awarded to 162 sponsors, suppliers and distributors of Pan products, on top of $55 million to former CEO Jim Selim.

Has the situation improved since 2011? What of all the other complaints resolution and industry regulation authorities? Are they any better than ‘toothless tigers’?

We asked a number of Australia’s leading regulation activists about their experiences and their views on the authorities themselves. And it’s not a pretty picture.

TGA AND CRP

The TGA is responsible for ensuring that therapeutic goods available for supply in Australia are safe and fit for their intended purpose. These include goods Australians rely on every day, such as vitamin tablets and sunscreens, through to goods used to treat serious conditions, such as prescription medicines, vaccines, blood products and surgical implants.

As such, it manages the Australian Register of Therapeutic Goods, which is a list of products that can be lawfully supplied in Australia. Suppliers can choose to ‘register’ or ‘list’ their products on the ARTG.

Medicines assessed as having a higher level of risk must be registered. According to the TGA, “the degree of assessment and regulation they undergo is rigorous and detailed, with sponsors being required to provide comprehensive safety, quality and efficacy data.” All registered medicines must display an ‘AUST R’ number on their label as proof of registration. Those medicines that are evaluated as ‘low risk’ are ‘listed’.

Listed medicines are usually considered to be relatively benign, so the regulations allow for sponsors to ‘self assess’ their products in some situations. The majority of listed medicines are self-selected by consumers and used for self-treatment, primarily complementary medicines, such as vitamin and mineral formulations, herbal preparations, homeopathic preparations, and essential oils. They are all unscheduled medicines with “well-known low-risk ingredients, usually with a long history of use, such as vitamin and mineral products or sunscreens”. All listed medicines must display an ‘AUST L’ number on their label as proof of listing, and must not contain substances that are scheduled in the Poisons Standard.

Listed medicines are assessed by the TGA for quality and safety but not efficacy. This means that the TGA has not evaluated them individually to see if they work. In fact, sponsors of listed products are supposed to have evidence of efficacy, but only a small proportion are ever asked to substantiate such claims.

The TGA is totally funded by the industry it regulates through fees and charges (with the exception of Government funding provided for the alignment of Australia and New Zealand therapeutic arrangements, and departmental funding for the operation of the Drug Control Section and Medicines Scheduling Secretariat). Estimated expenditure for 2014-15 is $147,736,000.

Some critics have expressed concern that the funding model for the TGA creates at least a perceived potential conflict of interest between the interests of consumers and the community, and those of the pharmaceutical industry.

The TGA has the power to delist or deregister products, or issue warnings and instructions if complaints against specific products are upheld. It does not, however, have jurisdiction over the practices of healthcare professionals.

The Complaints Resolution Panel (CRP) is the body that hears and assesses such complaints, and then gives the TGA advice based on its findings. It has no power to issue penalties or instructions in its own right.

The TGA prioritises its investigations according to two main criteria:

• Issues that may have adverse health consequences for consumers as a result of public access to dangerous or inappropriate goods; and

• Issues that affect the “TGA’s reputation among key stakeholders leading to a loss of confidence in our regulatory processes and subsequently a loss of confidence in available therapeutic goods.”

“We value all information we receive about cases of potential non-compliance and regularly adjust our strategies for prioritisation in response to new information or trends”, but there is no guarantee that any complaint is followed up.

Ken Harvey knows the TGA and CRP from the inside. Apart from sitting on bodies that have reviewed their

“ The funding model for the TGA creates a perceived potential conflict of interest.”

Ken Harvey, Marcus Bezzi (ACCC) and Rohan Hammett
operations, he has also made a number of complaints about specific products and product promotion to the CRP, all of which has been upheld (though that doesn’t necessarily mean all have reached a successful conclusion). And, of course, the long legal battle over the pseudo-diet product Sensaslim, an action that stymied the CRP for a frustrating period due to its regulation on not dealing with claims when the participants are before the courts.

“The first port of call [with a complaint] is the CRP, but the problem is it’s overloaded and overworked; it’s taking six, twelve months to get a determination.

“If a company ignores the determination, the CRP sends it off to the TGA who are obliged to do a completely separate investigation, which takes another year. Along the way the promotion [of the suspect product] continues. The TGA might come to the same conclusion as the CRP and ask for a Regulation 9 order for an audit of the company, but that will be challenged and go through appeals tribunals. So years can go by and nothing happens. At which time they can take the product off the market and put out a new one with exactly the same ingredients and call it something else.

“The CRP can only request – and the request has absolutely no authority whatsoever.

“The TGA can order, which sounds good, but again it seems to be totally ineffective. If that’s ignored and the appeals have gone through, they can themselves remove the product from the marketplace, but that’s not very effective because the company can just relist the product under another name and away they go. It would be preferable if the TGA had the power to impose some significant fines without having to go through the Crown Prosecutor. The advice from the public prosecutor is that the miniscule fines that are available at the moment aren’t worth the effort. So the TGA should have some administrative powers to fine people without having to take them to court, without all the hoo-ha, and if they also automatically got stuck into reviewing new products coming up or that had been delisted by the sponsor – simple things that the National Audit Office had suggested in their review some years ago – target your post-marketing reviews especially onto companies that were gaming the system. But they don’t seem to be doing that, because the same guys keep doing it. Complaints are upheld but ineffective.

“Essentially we either give the CRP the powers to do its own thing without having to refer it to the TGA, or preferably give it to the TGA because the CRP gets criticised as not having the expertise of the TGA and they are the ultimate regulators.

“My own view is probably that the CRP should go and the TGA should be beefed up to handle complaints in a timely fashion with appropriate penalties. At least if we only had one body instead of two that would take a couple of years out of the process.”

“Beefing up implies increased resources, and currently the funding arrangement for the TGA doesn’t look promising.

Harvey believes there has been a problem with the culture of the TGA in the past. “But since the National Audit Office got stuck into them and since they’ve had so-called TGA reforms, they have improved; they’re showing more rigor.”

“They are good people but they are hamstrung by the lack of resources,” Harvey says. “If you need higher fees on the industry to get the system to work, then so be it. They pay fuck-all at the moment anyway.”

Loretta Marron is an infamous and prolific campaigner against dodgy medical devices and even dodgier practitioners. She is a three time winner of the Australian Skeptic of the Year – twice in her own right and once as part of the Friends of Science in Medicine.

Her concern with the TGA is the listing process itself.

“ARTG goods are, in reality, self-regulated, so anything goes. Part of the TGA’s job is to help people with their applications for listings, so sponsors have learned how to word their applications to ensure acceptance of their devices onto the ARTG.

“Apart from a few yes/no questions aimed at classification, there is only a small list of ‘prohibited words’ which will stop an online device application going through, and a small ‘restricted word’ list which will trigger a review. These hurdles are well known and easily circumvented. For instance, sponsors learn how to advertise their invalid product by using “may assist with”. There is no effective way of stopping a sponsor from applying to put a ‘low risk’ product that has been removed from the ARTG for any reason, including safety and/or performance, straight back onto the ARTG with the same 90 per cent probability of no review.

“Fewer than 10 per cent of new ‘low risk’ entries onto the ARTG are randomly selected for post-market review, which means that more than 90 per cent of new complementary medicine entries are only scrutinised for compatibility with a number of key rules during the online application process.

“There is no pre-market scrutiny of the actual product specification, label, instructions, packaging, advertising or evidence, and low-risk devices receive virtually no pre-market scrutiny.

“I’m not aware of any sponsor being threatened with prosecution for providing false and/or misleading information in an application.”

ACCC
The Australian Competition and Consumer Commission (ACCC) is an independent Commonwealth statutory authority whose role is to enforce the Competition and Consumer Act 2010 (formerly the Trade Practices Act 1974).
and a range of additional legislation, promoting competition, fair trading and regulating national infrastructure for the benefit of all Australians.

This is a tall order and a broad reach, which means getting any one particular complaint heard can be difficult against so many competing claims.

Earlier this year, Rod Sims, current chairman of the ACCC, told a meeting of the Committee for Economic Development of Australia (CEDA) that the ACCC receives around 200,000 enquiries and complaints a year. It usually investigates over 500 matters, and takes about 30-40 cases to court each year.

“We are very aware of the effect we can have. Just making contact with a company can change behaviour. At the other end of the spectrum, when cases are taken to court, the effect is often considerable. … Indeed, we constantly hear of significantly changed behaviour across an entire industry when a case is taken against one company in that industry.”

Sims said there are both competition and consumer issues in the medical and health sector which need increased attention, and that this is a new priority area.

Marron says she is aware of the ACCC’s limited funds: “They have to be selective in the cases they take on, so they only choose those that put the health of the public at risk.”

They did this – with some helping and prodding from noted Skeptics – very effectively with the Power Balance wristbands. A simple message that the bands were useless - about as effective as rubber bands - put the company supplying them out of business.

Another example is the ongoing case against Homeopathy Plus (see the timeline sidebar in this article).

Harvey says that some submissions from industry say that the TGA and CRP should be taken out of the process and leave it to the consumer authorities. “But the ACCC is the first to say they’ve got an enormous lot of things on their agenda – banking and all sorts of other consumer issues – and they really don’t have the resources to be effective in an area like complementary medicine. ‘We expect the TGA to get its act together, they say, ‘We will act where we think there’s something particularly bad that needs public appraisal.’ But most of the time they can’t put it as a priority.”

HCC (NSW) AND OTHER STATES

The Health Care Complaints Commission (HCCC) of NSW “must investigate complaints that raise significant issues of public health and safety or significant questions about the care provided. In relation to individual practitioners, we must investigate complaints that, if substantiated, would provide grounds for disciplinary action or involve gross negligence. The Commission also investigates health practitioners who are not required to be registered, when evidence suggests that they have breached the Code of Conduct for unregistered health practitioners and are a risk to the public health or safety.”

It played a significant role in the prosecution of the Australian Vaccination Network, and though initially there were serious problems with the prosecution process (a witness was not personally harmed by the AVN) a new Act of Parliament – a strong indication of the depth of support of the government for dealing with the AVN and similar groups – meant that the HCCC was given new powers to proactively prosecute.

Nonetheless, there were problems along the way.

Ken McLeod, an early member of the Stop the AVN group and an integral player in the AVN case (himself suffering serious abusive claims from AVN president Meryl Dorey), says that “If I’m going to criticise the HCCC for one thing, it’s that I know of three cases where people have lied outrageously to the HCCC and there is provision in the act to prosecute, and they have declined. And they knew it was a lie because I told them. In the case of Meryl Dorey she lied and they put those lies into their report.

“Meryl Dorey in her response defamed me outrageously. I saw that there is a provision in the act that if anyone who harasses or punishes a complainant should be prosecuted. I wrote to the commissioner and he wrote back saying they wouldn’t prosecute and suggested that I myself could use a provision to sue for defamation. That advice was wrong, according to a QC I consulted. So I wrote to the HCCC and told them that their advice was wrong and they had misinformed me. But I never got a response to that. On the whole they have been pretty good, but they will not prosecute.”

Peter Tierney, author of the Reasonable Hank blog and instrumental in revealing the activities of certain chiropractors “sneaking” into maternity wards to perform treatments on newborns, also cites communication issues with HCCC, with some passion.

“I was involved in the second HCCC campaign following the AVN’s initial victory. We prepared a huge, damning document of evidence. I got several responses of ‘we have received your correspondence’; but, no feedback – absolutely nothing. This was over a two year period, I recall. We were really very patient. Should we give them a nudge, we asked ourselves? No, let’s wait.

“I emailed again, after the second Public Warning was published - stating Dorey was still making the very claims for which she was found in breach the second time - asking for a prohibition order. I think that went on for about six months.

“I counted up all the emails I’d sent them for last three years, in specific regards to the continued AVN breaches – and

**TGA: They are good people, but they are hamstrung by the lack of resources.**
they had emailed me twice. Infuriating.
“Finally they told me they couldn’t do a prohibition order against an organisation. They can only issue prohibition orders against a single health care practitioner, which Dorey is not. Why didn’t they tell me that before?
“The AVN is still operating – though in a diminished way – and still in breach of the orders set out in the second Public Warning. There’s nothing anyone could do about it due to loopholes still present in the Health Care Complaints Act. The HCCC needs to be granted the power to issue prohibition orders against organisations and/or individuals in an organisation. The HCCC would have some real regulatory teeth, with real penalties attached, if that were to happen.
Tierney knows that a key problem is that the HCCC is overburdened and under-resourced, and has sympathy for the HCCC personnel. But he also knows this is an on-going problem.
“With my prohibition request, I found out I’d been sending emails for six months to someone who had resigned, but no messages were bouncing and no-one told me that the person was no longer there.”
“It’s happening again with a complaint against a NSW chiro which has to go through the HCCC. It’s been a year; I’ve sent several emails and addenda. I had responses to my initial correspondence, but the last few? Nothing.
“I then sent another, CCing someone higher up – as the chiro practitioner was still freely posting misinformation on their Facebook page - and got a response saying the investigation was closed, and had been closed since before the previous three addenda. So, we can see where a timely response to emails would be helpful.
In its annual report for 2013-14, the HCCC notes that a Joint Parliamentary Committee on the HCCC “found that there was a perception that all complaints were treated the same and underwent the same process during their assessment.
Responding to the feedback, the process for the management of new complaints was reviewed and redesigned.”
“It says it is giving assessment officer greater ownership of their caseload, to see if a specific communication strategy is required for each case, improving data entry standardisation and reducing errors, and “improved monitoring and analysis of the timeliness of handling complaints”.
Marron says that after being invited to go undercover for Channel 9’s A Current Affair, she witnessed a terminally ill cancer patient having dilute bleach (Miracle Mineral Supplement (MMS) infused into her. “I emailed my oncologist who told me to contact the Queensland Health Quality and Complaints Commission [HQCC; now replaced by the Queensland Ombudsman] which I did the next day. They looked up MMS and confirmed that it was a form of bleach. They acted within a few days and confiscated the goods and shut down the clinic.
“After years of being fobbed off by the TGA, I tried another approach. I documented the false and misleading claims on around 800 practitioner websites and divided them into the relevant states, sent reports (a different project each month for 6 months) to the various health complaints commissions around Australia.
“I was contacted by the complaint commissions from Victoria and Western Australia, who told me that they would have to send the complaints to the TGA. I knew that they would ignore me, but I doubted that they would ignore the states. As a result, an investigator looked at the devices and over 30 were cancelled off the ARTG.”
THE SCORE CARD
Harvey believes that the ACCC is a good and effective regulatory body “when they have the ability to get stuck into a problem”.
“They’ve got the power to go right through to court, take the people to the cleaners, insist on retractions and fine people and put them out of business. They’ve got the power and they’ve used it on several occasions to send a very clear message to people that doing the wrong thing can be penalised. The problem is that there’s a limit on what the ACCC can deal with given their wide-ranging priorities.”
He says he doesn’t have a problem with the CRP. “You can ring them up and get advice; they will talk to you. I’ve never had a problem with their determinations. It’s just that they can’t enforce them.”
Perhaps the TGA is less approachable, he says, more formal. “With the TGA, you’ll put in a complaint and ask for an acknowledgement and hear the outcome, but usually you never do. They’re not good at communicating with complainants. The CRP is very good – they may be slow, but you will get an acknowledgement and you will get an outcome sent to you, eventually. The TGA, you usually have to look things up yourself, and ask a couple of years later why nothing has happened and you may or may not get an answer.”
McLeod is reasonably happy with the HCCC (more so, obviously, than Tierney), but much less so with the NSW Office of Liquor Gaming and Racing, which controls charities. “We brought deliberate frauds to their attention and they did fuck all. OLGR did withdraw AVN’s charity status, but that took forever.”
He says it is the same for the Australian Charities and Not-for-Profits Commission (ACNC), with which he has dealings – albeit, one-sided – regarding supposed research funding in the chiropractic industry.
The various state-based Fair Trading organisations tend to be overwhelmed with cases, so responses are unsurprisingly limited.
Marron has been in touch with the Medical Board of Australia, and individual state-based Medical Boards. She says they have dealt with complaints satisfactorily – “It just seems to take a
long time for them to collect enough evidence and expert opinions that will stand up in court.”

**ADVICE & SOLUTIONS**

The overall problems highlighted by the activists interviewed for this article are the lack of financial and people resources and the need for a proactive and reactive culture.

This was indicated by the responses from the regulators that we contacted for this article. We asked about their priorities, and which areas where they thought they were most (and possibly least) effective. When they did respond, it was normally “look at our website” or a copy-and-paste job from the same site. No value add, no meaningful information.

“A toothless weak regulatory system which encourages bullshit,” according to Harvey.

So what can be done, outside of wholesale rip-it-up and start again?

The major focus of all agencies is on harm minimisation, so stressing the harm that could be done to consumers is vital.

Marron says that the regulators all appear to be complaints-based: “It is rare for them to act without a lot of ‘noise’ from consumers.”

Barrister and member of the committee of Australian Skeptics Inc, Martin Hadley says “You have a much better chance of getting an agency interested if you can serve up the evidence to them as a package, ready to run, in contrast to a pile of allegations that they have to sort through.”

Complaints against practitioners have to stand up to legal scrutiny. This requires a lot of work by the regulator who has taken on the complaint, so they will not take on complaints unless they are confident that they will win in court.

Use the media. Richard Saunders was instrumental in bringing down the Power Balance wristband supplier in Australia. Beginning with a YouTube clip showing how so-called applied kinesiology works (it doesn’t), he followed with a news story on Channel 7’s This Day Tonight in Adelaide with the supplier being tested on his own products … and failing. That led to a mention by Choice and finally the ACCC putting their head up for the final blow.

The campaign against the visit by anti-vaccinationist Sherri Tenpenny was based on using social media as a call to action, followed by mainstream media attention, and the ultimate stopping of the tour.

You need to learn to cope with a reticence on the part of some industry bodies. As McLeod says, “There’s a vacuum in the medical and scientific professions for such lobbying. Until recently the AMA, government, scientists etc almost without exception were silent. They say they don’t want to give the baddies the ‘oxygen of publicity’. That’s common around the world. I think that is counter-productive.”

Of course, there are organisations, like the Australian Health Practitioner Regulation Agency and the various industry boards, that we have not covered in these pages – yet. And likewise there are many noteworthy activists doing battle with regulators who haven’t had their say in this discussion and who could all give great advice based on their experiences: Dr Rachael Dunlop (involved in many campaigns); Mal Vickers (who, in association with Ken Harvey, has recently submitted a study of chiropractors’ use of claims that are condemned by their own board); the executive members of the Friends of Science in Medicine; bloggers Dan Buzzard and Peter ‘Ratbag’ Bowditch; Wendy Wilkinson (SAVN); etc etc. Our apologies to those many others we haven’t mentioned.

But whatever the activity the regulator, the message from Loretta Marron is clear and sums up the views of the many: “Keep complaining - it makes a difference.”

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**Homeopathy Plus – A Regulation Timeline**

April 2012: ACCC investigates Homeopathy Plus website. HP ordered to remove article about pertussis vaccination claiming “short-lived and unreliable” and “no longer effective”.

November 2012: Revised article posted but still contains offending claims.

February 18, 2013: ACCC advises HP content is potentially deceptive and misleading. Advised the matter could be resolved by consent if HP agreed to orders by ACCC. HP refused to agree to orders. 

February 20, 2013: ACCC informs HP/Fran Sheffield that she was being taken to court. 

March-November 2013: Eleven court dates, most were administrative to set dates, granting extensions, etc.

December 22, 2014: Court declares that HP/Fran Sheffield “engaged in conduct that was misleading and deceptive or was likely to mislead and deceive, in contravention of section 18 of the Australian Consumer Law” and that “there is no reasonable basis, in the sense of an adequate foundation, in medical science to enable [HP and Fran Sheffield] to state that homeopathic treatments are safe and effective as an alternative to the vaccine for the prevention of whooping cough”.

April 22, 2015: Penalties hearing. ACCC asked for $62,500 for HP and $12,500 for Fran Sheffield. Sheffield claimed financial difficulty and “not even a bank statement”. Judge commented that Sheffield did not appreciate the seriousness of the findings. HP claimed it was a “Mum & Dad corner shop” operation.

May 13, 2015: Court orders that ACCC has leave to file any supplementary submissions by May 25; HP/Sheffield has leave to file their own supplementary submissions by June 5; and ACCC has leave to file any submissions in reply by June 12.

Thanks to Maureen Chuck for the timeline.
An unannounced audit of all of Pan’s operations was planned to take place in the week of February 24, 2003. Due to objections by the company, TGA officers were only able to examine limited records on that occasion and the audit was limited to two days, February 24 and 25. However, they took away with them a range of data which, the TGA said, highlighted areas of concern to be targeted for careful investigation in a further audit. This additional unannounced audit occurred from April 7-14, 2003.

An Expert Advisory Group was established to advise the TGA on the health and safety risks posed to consumers of products manufactured by Pan. This met on April 23, and recommended to the TGA that the manufacturing breaches were of “such consequence that it was considered that ongoing availability of Pan Pharmaceuticals’ products represented very serious risks to the community. They advised that the risks would increase over time, and that they could be realised at any time.”

The TGA immediately suspended Pan’s manufacturing licence for six months and commenced a recall of all products made by the company since May 1, 2002 (when the company’s last satisfactory good manufacturing practice – GMP - audit had been completed). This included a later recall of all products made by Pan under contract for others. This was the biggest drug recall in Australian history.

The TGA said that inspections of Pan’s manufacturing premises had subsequently found evidence of widespread and serious deficiencies in the company’s manufacturing and quality control procedures, including what the TGA described as “systematic and deliberate manipulation of quality control test data and other serious breaches of GMP”. Included as examples of this was Travacalm: according to an ABC interview at the time with Dr John McEwen, the principal medical adviser for the TGA, within the one pack some tablets had no active ingredient and at least one tablet...
had up to seven times the amount.

Needless to say, the company collapsed and about 300 people lost their jobs.

But Selim maintained that the TGA had abused its power, and brought a $234 million misfeasance action against it. He claimed that there’d been a vendetta waged against him following a failed action in the 1990s. Among the evidence presented was a supposed meeting where a TGA officer, speaking of Pan, had said that they should “go for the jugular”.

After five years of prolonged action, the Federal Government agreed to a settlement of $55 million, comprising $50 million in damages and $5 million in costs. While Pan had won a judgement in its favour, the Commonwealth did not concede any of the specific allegations in the proceedings.

While the Commonwealth dropped four criminal charges against Selim for failing to disclose material information relating to four separate board meetings, Pan did plead guilty to a number of criminal offences - inflicting grievous bodily harm and manufacturing counterfeit medicines – and was fined $3 million, and later another $10 million for using false certificates and altering the ingredients of products it exported to Vietnam.

But the settlement opened the path for conspiracy theorists to claim a plot against a local firm as against large multi-nationals. It also opened the government and TGA to a class action.

And that is exactly what happened.

CLASS ACTION
Pharm-a-Care Laboratories Pty Ltd, on behalf of itself and 161 other sponsors, suppliers and distributors of Pan products, claimed “economic loss and aggravated damages”, the class action centring on alleged negligence by a Federal Regulator as well as alleged misfeasance in public office by individuals employed by the Regulator.

Again, a settlement was reached in 2010 “without any admissions as to liability” and involved a payment of $67.5 million. The settlement was formally approved by the Federal Court (a necessary legal requirement for any Federal Court class action settlement) in March 2011.

The settlement sum was made up of $32.5 million for the class members’ alleged loss and damage; $30 million for interest on that amount, calculated from 2003; and $5 million for costs relating to the class actions.

The five current and former TGA officers mentioned in the case were not required to contribute to the amount.

In total, over $120 million had been paid out by the Commonwealth to Selim and the class action members.

Selim had died of leukaemia in May 2010, and though he had given what his lawyer called “evidence on his death bed” in favour of the class action members, he did not live long enough to see the class action finalised. He supposedly left an estate worth up to $200 million, which ultimately led to in-fighting between members of his family over the division of the assets under his will.

WINNERS AND LOSERS
So, what was the outcome of the Pan Pharmaceutical case?

Certainly the various payouts and fines indicated that there were serious problems on both sides.

On a longer term basis, there is the suggestion that what many in the media had called a “debacle” has led to regulators, and particularly the TGA, being more cautious in its approach to industry oversight.

Despite the settlements, the TGA and the Commonwealth have admitted no liability and did not concede any of the specific allegations in the proceedings. The case by Selim rested on the rapid action by the TGA, shutting the company down without notice, and not on the findings of its audits of its manufacturing processes.

These latter findings reverberated through the complementary medicine industry, with some consumers moving away from suppliers in fear of similarly tainted products.

But not all suppliers suffered - Blackmores and others benefited from Pan’s closure.

Blackmores was Pan’s largest competitor, and it includes Pan’s collapse on its website page devoted to significant events in the company’s history: “2003 - Pan Pharmaceuticals faces largest ever recall of medicines in Australia. The impact on the CM industry was unprecedented. Blackmores, having never used Pan as a manufacturer, experiences a significant sales lift.”

In 2005, chairman Marcus Blackmore told the Sydney Morning Herald that “We did very well out of the Pan crisis and maintain a lot of the market share gain. … The industry bounced back and is now bigger than it was pre-Pan - that level of confidence in the Australian consumer did not wane.” This is in contrast to comments he gave three years later to the Herald that his company was considering joining the class action to recover hundreds of thousands of US dollars spent on advertising in the wake of the recall. “We lost 20 per cent of our customers in the first week.”

And what of the original cause of the saga – the travel sickness pills?

You can still get Travacalm products, now manufactured by Key Pharmaceuticals. On the company’s website is the statement that “Nearly all of the company’s products have therapeutic or diagnostic value, and have undergone regulatory evaluation and approval by the Therapeutic Goods Administration (TGA). A core commitment of the company is to offer safe and effective products which provide quality and value to our consumers and customers. The TGA licenses the company’s activities in packaging, warehousing and releasing products for sale, and audits these activities to GMP standards.”

The need to be alert to ensure that claims made about complementary medicine products are true and accurate is an on-going requirement.
Last year, the Commonwealth Department of Health established a Review of Medicines and Medical Devices Regulation (http://tinyurl.com/q5sxw47). The Expert Panel for the review would examine Australia’s medicines and medical devices regulatory framework and processes with a view to identifying:

- areas of unnecessary, duplicative, or ineffective regulation that could be removed or streamlined without undermining the safety or quality of therapeutic goods available in Australia; and
- opportunities to enhance the regulatory framework so that Australia continues to be well positioned to respond effectively to global trends in the development, manufacture, marketing and regulation of therapeutic goods.

In February of this year, the Panel called for submissions in response to a further element of the review, a discussion paper on complementary medicines, called Chapter 9.

A key plank of the review is the possibility of deregulation of some or much of the current oversight of the complementary medicine industry. Australian Skeptics Inc, like many other groups, made a submission to the complementary medicine review. The following is the edited text of that submission.

We look forward to the Government’s response to the final report, which is due at the end of this year.

**ASI SUBMISSION**

Australian Skeptics Inc is the umbrella body of a confederation of skeptical groups within Australia, made up of many thousands of formal and informal supporters of a scientific approach to the study and assessment of claims of pseudoscience and the paranormal. It was founded in 1980, and is the oldest independent skeptical body in the world.

Over the years, various Skeptics groups and individuals have put much effort into the study of complementary and alternative medicine. The body of knowledge gathered in this period has relevance to the current review.

We submit that the most important issue is the efficacy of complementary medicines and devices. There are four aspects to our consideration of efficacy:

- The need to balance deregulation with consumer rights and expectations.
- The quality of scientific evidence presented as supporting complementary medicines.
- Self-regulation in the complementary medicines area.
- The role of the TGA and the need to regulate complementary medicines and supporting evidence.

**CONSUMER RIGHTS**

While we appreciate that there is concern in some quarters as to the burden of government regulation on associations, industries, companies and individuals, we think it is important to consider the motivation for why those...
regulations were instituted in the first place.

They were designed to protect the rights and expectations of individuals and organisations in the face of practices that might not be in their best interests, or may be actively deleterious to the well-being – financial or medical – of consumers.

The current Chapter under consideration includes a discussion of the key issues affecting the area of complementary medicines and devices.

It summarises the discussion thus: “The regulation of complementary medicines in Australia has drawn criticism from both consumers and industry, with concern expressed about the safety and efficacy of listed complementary medicines on the one hand and about over-regulation on the other.”

The issue here is where that balance lies.

The Chapter goes on to specify the four major themes for the discussion:

• There is duplication of regulatory processes, which creates an unnecessary burden on industry.
• Some regulatory requirements are not considered to be commensurate with the risk posed by the regulated products.
• The regulatory framework is overly complex and poorly understood by many of those who have to interact with it.
• In some areas, the Act provides inadequate enforcement powers and penalty regimes, resulting in a poor deterrent effect and in the Therapeutic Goods Administration (TGA) not responding to some breaches in a timely manner.

It is apparent to us that, beyond the 3:1 ratio between regulation and consumer rights in the above list, the detailed discussion in the bulk of the Chapter is heavily weighted toward the burden of regulation on the complementary medicine industry and the prospect of deregulation. In fact, the discussion of the first three themes – on regulation – covers nearly 14 pages of the Chapter, while that on the fourth point – consumer protection – covers less than one page.

We firmly believe that this ratio is misguided; that consumer and patient rights and expectations should be central to all discussion, rather than the financial and logistic burden of regulation on organisations and companies.

The Chapter does state that: “The Australian community expects medicines on the Australian market to be safe, of good quality, effective and available promptly.”

We believe that this understanding should be more than a minor part of the discussion, and that the overriding concern should be: Does the product work, rather than how hard is it to do business.

**SCIENTIFIC EVIDENCE**

There are differing requirements demanded of producers of complementary medicines for inclusion on the TGA’s Australian Register of Therapeutic Goods (ARTG).

The producers of the 200 (out of 12,000) complementary medicines that are “registered” on the ARTG are “required to submit a detailed dossier of information to the TGA, for full evaluation for quality, safety and efficacy prior to being accepted on the ARTG”.

On the other hand, the producers of the vast majority of complementary medicines that are “listed” rather than “registered” on the ARTG “must make certifications about quality, compliance with labelling, packaging and GMP [good manufacturing practice] standards, and use of approved ingredients. The sponsor must also certify that they hold evidence to support any therapeutic claims.”

However, except in certain rare circumstances, the producer of a listed product is not required to prove that it actually has such evidence to support a claim, or that the evidence is of sufficient quality to support these same claims.

The system is therefore open to abuse, and we suggest that this occurs regularly.

As the Chapter cites, the Department of Health reported that, based on 2009-10 data, as many as 90 per cent of listed products reviewed were found to be non-compliant with regulatory requirements, and a “significant number” were subsequently removed from the ARTG. This is indicative that lack of compliance (and by implication evidentiary support) is more than a lesser concern.

Registration or listing on the ARTG gives a product a strong imprimatur of an independent and trusted authority, particularly as the Therapeutic Goods Act of 1989 requires that the efficacy of complementary medicines must be demonstrated before they can be supplied in Australia.

However, despite this implicit and explicit requirement on the authority to ensure efficacy of products, there is no effective and reliable method to ensure that this is the case.

For instance, homeopathic preparations are included in the list of “designated active ingredients” for complementary medicine in Schedule 14 of the Therapeutic Goods Regulations 1990.

The National Health & Medical Research Council recently issued a report that was the result of the Council’s assessment of more than 1800 ‘scientific’ papers, of which 225 studies met the criteria to be included in the examination of the effectiveness of homeopathy. The review found no good quality, well-designed studies with enough participants to support the idea that homeopathy works better than a placebo, or causes health improvements equal to those of another treatment.

This is not a new assessment of the efficacy of homeopathy – such views have been held and presented for many years. And yet homeopathic preparations are included in the list of complementary medicines, regardless of any lack of scientific evidence. (Aromatherapy preparations, where a similar lack of scientific evidence exists,
For the People

Continued...

are also referred to in the Chapter as among the list of “complementary medicines”.

The Chapter also refers to “traditional” evidence that can be included in the claim to support a complementary product. “Traditional” evidence can be equated with “anecdotal” evidence, which is widely accepted to be unreliable. This indicates that the concept of “evidence” has the potential for great weaknesses.

This means that, even if the producers are required to present the scientific evidence they supposedly hold – which is rare – there is a strong possibility that that evidence is not of sufficient quality to support any ‘medical’ claims made by the producers.

The requirements, therefore, to substantiate the efficacy of some products are not implemented or complied with or scientifically valid in many cases.

SELF-REGULATION

The Chapter says that “some industry organisations have described the evidence requirements as overly burdensome”.

If this is the case, what then should be a proper way to ensure that complementary products do comply with regulations and notions of efficacy?

Internationally, the Chapter comments, authorities seek to protect consumers from false and misleading advertising of medicines generally through self-regulatory schemes, adherence to which peak industry associations require as a condition of membership.

But self-regulation – as opposed to any independent assessment – can be compromised by vested interests, industry ‘standards’ that are less than might be expected, or even producers who ignore the self-regulated industry standards entirely.

This is evidenced by the situation that exists within the chiropractic community. While this is not included among the complementary medicines under discussion, it is indicative of some of the issues inherent in self-regulation.

‘The Chiropractors’ Association of Australia (CAA) is the largest body of professional chiropractors in Australia, and the Chiropractic Board of Australia (CBA) is the body that regulates the industry by developing standards, codes and guidelines. While both have made statements that discourage or prohibit certain unfounded claims about the efficacy of chiropractic, many practitioners still continue to make such claims. In fact, some members of the CAA’s own Board ignore their own body’s advice.

This discontinuity between what the CAA says officially, and what its practitioners – including current Board members – do in reality, is indicative of a less than rigid adherence to the industry’s own standards of practice, and the total ineffectiveness of the CAA Board to regulate its own members.

The president of the CAA, Lawrence Tassell, admits as much when he said in a President’s Letter published in the industry magazine, that “All the CAA can do is to request that its members desist.”

This apparent “toothless tiger” situation is mirrored in many other self-regulatory environments, including at times the media, advertising and financial services. The expectation that self-regulation is consistent, effective and definitive is sadly not supported by the evidence.

This is clearly an issue in the complementary medicine area.

Independent oversight – with proper powers of coercion – is therefore vitally important for the control of unethical or improper activity, as well as the appearance that such activity is properly controlled and, where necessary, punished.

THE ROLE OF THE TGA

The emphasis to independently control unethical and improper activity falls, then, on the TGA, including its Advisory Committee on Complementary Medicine and its Complaints Resolution Panel.

But, as stated in the Chapter, the TGA does not individually evaluate listed medicines before they are entered on the ARTG.

In fact, in a session on regulating medical claims held at Australian Skeptics National Convention in 2011, the former national manager of the TGA, Dr Rohan Hammett, admitted that the TGA was ‘hamstrung’ by a lack of resources. He compared the TGA’s then staff numbers of about 610 FTE and an annual budget of A$113 million, with that of the US Food and Drug Administration (about 17,000 people and a budget of US$4 billion) and Canada’s Health Products and Food Branch (2100 people and C$289 million). And this despite the fact that all groups monitor roughly the same number of products – about 64,000.

This forces the TGA, he said, to make decisions on which products to investigate more closely based on the “risk continuum” – the higher the risk of harm, the increased level of TGA regulatory interest.

This means that the bulk of complementary medicines listed in the ARTG are never assessed for actual efficacy, or even the very truthfulness

“ The ‘toothless tiger’ situation is mirrored in many self-regulation environments.”


in their claimed results or even if they have the scientific support that they are supposed to possess (though not required to present). Only random examinations of listed products are carried out, and due to the lack of resources these can only be of a relatively cursory nature.

The possibility that as many as 90 per cent of listed products are not complying with regulatory requirements means that this is a serious situation that needs to be addressed.

Even when a product is reviewed, as the Chapter says, “There is nothing stopping the sponsor [of a complementary medicine product] from re-listing the complementary medicine on the ARTG at a later date. The TGA includes re-listing of products as one of the risk factors that it takes into account when determining which products should be subject to targeted review, but not all such re-listings will be reviewed. This creates an opportunity for sponsors to ‘game’ the system. That is, sponsors perceive little risk in listing products that are non-compliant, as they can simply request the product be removed from the ARTG should it become subject to review.”

We appreciate that the TGA is limited by lack of resources in undertaking a proper review of the many thousands of products listed on the ARTG. We therefore suggest the following protocols:

- All listed products must include in their submissions the scientific evidence that they state they have. The “promise” of being able to present such evidence in the unlikely event that it is called upon is not enough. In other words, the overriding requirement should be “no evidence, no listing”.
- All supporting evidence must be published on the TGA (or other) website in a form that is readily accessible to members of the public. Note we are talking about scientific evidence of efficacy, not necessarily any proprietary information on ingredients.
- That the bona fides of such scientific evidence could be assessed on a peer review basis, even involving a “crowdsourcing” function. This would allow the TGA to concentrate its efforts on “high risk” products while supposedly lower risk products are still subjected to scientific review. Those finding issue with the submitted evidence could then highlight this for further investigation. In our experience, there are many qualified members of the public who would be happy to support such a system.
- This system would be an efficient, effective and low-cost operation that would still have the desired effect of ensuring efficacy of the relevant products and weeding out the large number – if not a majority – of producers who make unsubstantiated and possibly deceptive claims about their goods.

Overall, we agree with the statement that there are “inadequate enforcement powers and penalty regimes, resulting in a poor deterrent effect and in the TGA not responding to some breaches in a timely manner”.

We would go one step further and suggest that there are many products, that draw on the imprimatur of a TGA “listing”, that are inefficacious, if not potentially dangerous.

Even though implemented with the best intentions, deregulation carries with it a risk that consumers are not protected from ineffective or unscrupulous activity, and that their rights and expectations rate as a secondary concern compared with the rights of producers of potentially worthless products.

Where are you going?

Dear subscriber...
If you change your postal or email address, please drop us a line.

We know how traumatic it would be to miss even a single copy of The Skeptic.
Bigfoot. Sasquatch. Wildman. Whatever you want to call it, this legendary, hirsute giant is North America’s favourite, frustratingly elusive, spectacularly camera-shy, forest-foraging hominid. When it comes to cryptozoology – the study of hidden animals – Bigfoot is one of the undisputed lords of the mystery manor. Yet despite the paucity of evidence for its existence, people still believe that Bigfoot is real, and in one sense, the creature really is alive and well in the world today.

Of course, Bigfoot is not literally alive as a flesh-and-blood critter, but the search for Bigfoot continues to flourish in the Information Age. Jarret Ruminski looks at the culture and practices of believers in hairy hominids in the Information Age.

Thus, in an urbanised, digitally-connected world in which more and more of the human population has less and less contact with nature, why in the heck does belief in Bigfoot – perhaps the most awesome mythological symbol of humankind’s primal past – continue to thrive?

In reality, Bigfoot lives on precisely because the world is more connected, more urbanised, and increasingly less beholden to traditional authority.

A Host of Hairy Hominids

Large, bi-pedal, apelike, often hairy, and even more often smelly hominids have been claimed for places around the world. Some appear in folk/tribal legend or mythology – the Menehune of Hawaii, Maero of New Zealand, the Wak-Wak of the Philippines, and even the more-leafy-than-hairy Green Man of Europe – but the following list covers a selection of examples that are currently claimed as real creatures. Evidence is, as might be expected, slim (if any) but belief continues nonetheless. Note that in this list, terms such as “sighted” and “reported” should be taken with a grain of salt.

ALMAS (Mongolia, Central Asia): Purported to inhabit the Caucasus and Pamir Mountains of central Asia, and the Altai Mountains of southern Mongolia. Almas is a singular word in Mongolian; the properly formed Turkic plural would be ‘almaslar’. The Almas is generally considered to be more akin to “wild people” in appearance and habits than to apes.

AMOMONGO (Philippines): Incidents reported of a man-sized hairy ape attacking villagers and eating animals. Described as 5.5ft with very long claws or fingernails.
figures and institutions. In a digitally-networked global society where people exchange ideas at a lightning pace and where the influence of traditional knowledge gatekeepers is waning, Bigfoot provides people with an emotional connection to nature in a world where fewer people experience nature. But they can experience it through Bigfoot. This elusive cryptid also provides stability and a sense of release via the notions that there are still mysteries in the world; that dedicated amateurs can still make great discoveries, and that so-called “professionals” and “scientists” do not know as much as they think they know.

**SUBCULTURES**

Bigfooting is indeed a subculture, a “culture within cultures” that are “made up of a large number of groups with which people identify and from which are derived distinctive values and norms and rules for behaviour”. They also exist in relation to larger, dominant cultures. In the world of Sasquatch enthusiasts, online technology, black-helicopter-laden conspiracy theories, crackpot pseudoscience, anti-elitism, salt-of-the-earth populism and even genuine curiosity combine to create a fascinating Bigfoot subculture. Indeed, you cannot explain this subculture without considering the conspiratorial contexts in which it marinates – contexts that reflect broader social trends.

“The Information Age, the era of the internet and instant communication, distributes these conspiratorial contexts to millions of people every day in the industrialised world. This rapid flow of unregulated information, which suffers no peer review beyond those who exchange it, keeps Bigfoot ‘alive’.”

The Spanish sociologist Manuel Castells writes that the Information age (aka, the “Network Society”) is characterised by “the networking form of organisation”, and by “a culture of real virtuality constructed by a pervasive, interconnected, and diversified media system”. Castells argues that the Network Society has created “a space of flows and of timeless time”, in other words, continuous flows of information within distinct cultural channels (message boards, websites, social media groups, podcasts, etc) that can self-regulate and self-perpetuate. This process creates “powerful expressions of collective identity” that include “proactive movements” as well as “reactive movements that build trenches of resistance” on behalf of subcultures seemingly threatened by a new, tiny world.

Yet, even as the Information Age threatens subcultures, it also allows them to thrive. Of course, the world of Bigfooting existed before the internet, but the internet has perpetuated Sasquatchery as a contained subculture long after the notion of hunting the beast has ceased to be a mainstream topic.

There remains an overwhelming lack of physical evidence to prove that any creature like Bigfoot is actually traipsing around in the forests of North America, so there is no need to rehash the “is it real?” debate here. Instead, I am going to focus on why the Information Age keeps Bigfoot ‘real’ to so many people. I am going to try to understand why these Bigfooters believe what they believe, and what belief in Bigfoot can tell us about some significant issues affecting society in the twenty-first century.

**THE FIRST WAVE OF BIGFOOT: 1929-1980**

Bigfoot is literally a creature of pop culture: mass media helped cement its place as North America’s most famous

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**BARMANOU (Barmanu or Baddmanus – Pakistan):** Allegedly inhabits the mountainous region of western Pakistan, covering the Chitral and Karakoram Ranges, between the Pamirs and the Himalaya, which places the Barmanou between the ranges of two more-famous cryptids, the Almas of Central Asia and the Yeti of the Himalayas. It has a reputation for abducting women and occasionally killing humans and tearing out their livers.

**BATUTUT (Ujit or Ngowi rung – SE Asia):** Sometimes also known as “forest people”, thought to inhabit wilderness areas of Vietnam, Laos and northern Borneo. It is described as being approximately 1.8m tall and covered with hair except on the knees, soles of the feet, hands, and face. The hair ranges from grey to brown to black. Reported both solitary and moving in small groups. It is most often sighted foraging for food ranging from fruits and leaves to langer monkeys and even flying foxes. In Borneo, witnesses describe it as four feet tall and very aggressive, occasionally killing humans and tearing out their livers.

**BUKIT TIMAH MONKEY MAN (Singapore):** Said to inhabit the forested Bukit Timah region in the centre of Singapore, 12km from the city centre. The creature is often cited as a forest-dwelling hominid or primate, and also as being immortal. Sightings of the animals are rare, with records coming mainly from Malay folklore, accounts from Japanese soldiers in World War II, and occasionally from local residents. The first sighting occurred in about 1805; the
Man Made
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Man Made

Cryptid. It is impossible to give a complete history of Bigfoot here, but some historical backdrop is necessary in order to understand the underlying forces that still drive Bigfooters to this day.

Two core events helped forge the modern, pop-culture notion of Bigfoot. These events are connected through the people and media that stretched them into a decades-long phenomenon that spawned a new subculture dedicated to finding North America’s “great ape.”

The John Burns Tales
In 1929, John Burns, a teacher working on the Chehalis Reservation near the town of Harrison Hot Springs, British Columbia, Canada, published a collection of tales detailing the supposed existence of a race of giants that lived high in the Canadian mountains in an article for Maclean’s magazine. Although the native tales about wild people were diverse, Burns synthesised them under the category of “Sasquatch,” a term he coined by anglicising a word in the Halkomelem language of the Coast Salish people. These tales spread the Wildman legend throughout Canada. As one skeptic observes, “All of the modern Bigfoot mythology grew from this regional seed.”

Burns’ tales attracted two individuals who would become Godfathers of Bigfooting: John Green and Rene Dahinden.

John Green was a newspaper publisher based near Harrison Hot Springs who became convinced that Sasquatch was more than a myth. A graduate of the Columbia School of Journalism, he was a gifted narrative writer, and over several decades he compiled Sasquatch sightings into several books that still serve as revealed scripture for modern Bigfooters.

Rene Dahinden was a pugnacious, Swiss-born immigrant with a notoriously prickly temperament (he referred to scientists as “clodhoppers”). After coming to Canada in 1953, Dahinden found his life’s calling via the Sasquatch. “I’d been searching all my life for a chance like that, a chance to really accomplish something,” he said. During his lifetime, Dahinden was probably the world’s only full-time Sasquatch researcher. He became so obsessed with finding the beast that he actually abandoned his wife and son to hunt the creature. “We parted company in a nice way, you know, as adults, more-or-less” Dahinden told the Canadian Broadcasting Corporation. “Somebody said it was either the Sasquatch or me [referring to his wife]. Well, I choose the Sasquatch, right or wrong – I’m not crying about it.”

I will return to Green and Dahinden, but first I have to mention the other major event that further drew them, and many more, into the new Sasquatch subculture.

Big Foot in Bluff Creek
While Green and Dahinden spent the 1950s investigating Sasquatch in Western Canada, the small mountain town of Bluff Creek, California became America’s Sasquatch ground zero. In the summer and early fall of 1958, Bluff Creek bulldozer operator Jerry Crew started finding huge footprints stamped around his worksite. On October 3, he made a plaster cast of one of the prints.

Crew took the cast to a local newspaper, the Humboldt Times, which ran a story accompanied by a picture of Crew’s cast that wondered if the tracks were “a human hoax” or “the actual marks of a huge but harmless wild-man”. The tracks were almost certainly a hoax perpetrated by local contractor and lifelong Bigfoot hoaxer Ray Wallace, a joker who, in the words of naturalist Michael Pyle, had an
insatiable need to build “mountains of bullshit”. Wallace’s death in 2002 made national headlines as the death of Bigfoot.

Despite the shadow that Wallace cast over the Bluff Creek incident, the Humboldt Times christened the track-maker as “Big Foot”, and it ran subsequent stories about the “creature” that helped to turn Bigfoot into a media phenomenon and made Rene Dahinden and John Green (who thought that Bigfoot was the US’s version of Sasquatch) into lifelong researchers.

Bigfoot’s media stardom became further solidified on October 25, 1967, when Roger Patterson, a rodeo cowboy and consummate huckster who never seemed to run out of get-rich-quick schemes, along with his friend, Bob Gimlin, allegedly filmed a Sasquatch strolling along the Bluff Creek tributary of the Klamath River in northern California. The film made Bigfoot world-famous, and Bigfooters still revere the film as a sort of holy Sasquatch relic.

THE BIGFOOT COMMUNITY

As life-long Sasquatch investigators, Green and Dahinden embodied the qualities that Bigfooters still embrace today: they were hard-nosed, no-nonsense, roll-up-the-sleeves amateur researchers undeterred by the guffaws of professional eggheads who dismissed Sasquatch as a mere myth.

This salt-of-the-earth, anti-elitist charm fits nicely with a conspiratorial approach to science and the natural world that has always engendered a persecution complex in Bigfoot hunters.

We often associate conspiracy beliefs with grand ideas about the Illuminati and the New World Order, but they need not be so grand. Political scientist Michael Barkun defines a conspiracy belief as “the belief that an organisation made up of individuals or groups was or is acting covertly to achieve some malevolent end”. Varying levels of paranoia fuel conspiracy beliefs or “conspiracist ideation”. People are drawn to conspiracy beliefs because they provide a narrative to help explain the frustrations believers feel when trying to navigate and comprehend the world’s many uncertainties.

Political scientists J. Oliver and Thomas Wood note that “Narrative structuring of information is central to human cognition.” Conspiracy theories are attractive because “Their Manichean narrative structures … provide compelling explanations for otherwise confusing or ambiguous events.” Bigfooting has always been an ‘Us versus Them’ phenomenon in which dedicated (usually amateur) Sasquatchers have positioned themselves as truth-seekers hell-bent on investigating a creature that a cadre of uninterested (and possibly malevolent) professional scientists have inexplicably refused to acknowledge via a conspiracy of silence. According to Bigfooters, if scientists would only devote themselves to searching for the Sasquatch, the beast could move out of the dusky, mythical fog and come into the spotlight of truth.

The fact that scientists dismiss Bigfoot and sometimes mock the dedicated amateur hunters who are short on time and resources but long on passion provides Bigfooters with a straightforward, compelling explanation for why Bigfoot hasn’t been found.

Both John Green and Rene Dahinden operated under the adversarial framework. Scholar Joshua Blu Bahs, author of Bigfoot: The Life and Times of a Legend, argues that Bigfooters embarked on a “contest for dignity”, a quest to delegitimise the “middle-class autonomy” of professional know-it-alls by proving that Bigfoot, the object of scientific scorn, was real.

“Science is the pursuit of the unknown,” Green huffed. “Now maybe the scientists think there is nothing unknown, since they know it all, and therefore they don’t have to pursue it.”

Dahinden, who had no filter to speak of, was even blunter when he described what he would do if he caught a Sasquatch: “I’d take the

the existence of this creature is limited to various sightings and a few photographs of unusual footprints, though it is also seen as a supernatural being, more in myth than reality.

FOUKE MONSTER (or Southern Sasquatch – USA): Reported near the town of Fouke in Miller County, Arkansas, during the early 1970s. The creature was accused of attacking a local family. Initial sightings of the creature were concentrated in the Jonesville/Boggy Creek area, where it was blamed for the killing of local livestock. Later, sightings were made several hundred miles to the north and the east of Fouke. Described as being covered in long dark hair, about 2m tall with a weight of 110–140kg. Its chest said to be about one metre wide. Later reports during the early 1980s, claimed that it was far larger, with one report describing it as 3m tall, with an estimated weight of 360kg. Reports also describe it as having a terrible odour, a combination of “a skunk and a wet dog”, with bright red eyes “the size of silver dollars”. A variety of tracks and claw marks have been discovered, with one set appearing to show that the creature has only three toes.

GRASSMAN (USA): Supposedly inhabiting the territory around Cuyahoga Valley National Park, Ohio, Grassman is described as “a Bigfoot type creature” that is 8-9 feet tall, 900-1000 pounds, and leaves three-toed tracks. Some reports indicate that it may be much larger and very aggressive.
**Man Made**

*Continued...*

scientists by the scrub of their collective neck and rub their goddamn faces in [it].” Similarly, in 1996, he observed that, “I have no degrees, I have no PhD – thanks [sic] God for that. You start out with a PhD; you’ve already got about 60 strikes against you.”

Neither Green nor Dahinden were scientists. They therefore served as high-profile spokespersons for what became the first-wave of Bigfoot subculture. Media dissemination – via newspapers, men’s magazines, TV specials, newsletters, and pseudo-scientific journals – united the primarily white, working-class male Bigfooters in their quest for dignity. Blu Bahs notes that collecting Bigfoot media stories and launching their own expeditions allowed Bigfooters to “call the beast into being”, to prove Sasquatch to the scientist by casting a track in a cat litter box and adding details such as an arch, dermatoglyphs and walnut shells to mimic traces of under-foot debris.

Krantz’s arrogance went hand-in-hand with his paranoid, conspiratorial view that others were out to squelch his work. He wanted the fame that would come with proving Bigfoot’s existence, but his scientific colleagues would not take him seriously and refused to publish his Sasquatch research. Like Green and Dahinden, Krantz spent much of his time trying to prove the existence of the elusive Sasquatch while pitting himself as a truth-seeker undeterred by howls of professional scoffers – but he always wound up empty-handed.

Green, Dahinden, and Krantz all failed to find their elusive, hirsute quarry. Dahinden died in 2001. Krantz died in 2002. Green is now in his late eighties and has retired from active Bigfoot research, although he still catalogues sightings. In a crucial sense, however, the efforts of these iconic Bigfooters were not in vain. In the internet age, dedicated next-generation cryptozoologists consider these men to be the Founding Fathers of Bigfootery.

**BIGFOOTING IN THE DIGITAL ERA**

The second wave of Bigfoot subculture really begins with the advent of the internet, and the digital age has

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“Mass media fuel the digital Sasquatch era, but the Information Age spreads the culture on a worldwide basis.”
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been key to keeping the beast ‘alive’. The search for Sasquatch continued throughout the 1980s and 1990s, and it even added to its ranks two bona fide academics: Dr John Bindernagel, a Canadian wildlife biologist, and Dr Jeffery Meldrum, a tenured professor of primate anatomy and anthropology at Idaho State University. Both men have written extensively on Bigfoot.

Yet Bindernagel and Meldrum are not the major drivers of the contemporary Bigfoot subculture. That honour goes to the thousands of amateur Sasquatch enthusiasts who share research and stories about the elusive cryptid via internet forums, websites, and especially podcasts. As was the case with the first wave of Bigfootery, mass media fuel the digital Sasquatch era, but the internet-driven Information Age spreads Sasquatch culture on a worldwide, instantaneous scale.

Its technological basis notwithstanding, today’s Bigfoot subculture still relies on two tried-and-true themes: conspiratorial beliefs that shady powers are suppressing the truth and the idea that dedicated amateurs must boldly squat where no elitist scientist has squatched before.

However, before I get to the specifics of the second wave of the Bigfoot subculture, permit me to elaborate on whom the modern Bigfooters actually are. Simply put: while some are obvious cranks and charlatans, the majority are normal people in most other aspects of their lives.

In 2010, sociologists from Baylor University in Texas published the book *Paranormal America*, a scholarly study of paranormal beliefs (which includes belief in Bigfoot) among the American public. The authors found that believers in the paranormal are different in some ways: minority groups with less societal power, such as women, African-Americans, etc., as well as people with lower levels of education are slightly more prone to paranormal beliefs, but only slightly. Paranormal beliefs also draw in people with higher levels of education and income. In fact, the Baylor study found that more than two-thirds (69 per cent) of Americans subscribe to some form of paranormal belief. Unless half of the US is daft (an admittedly debatable point), then belief in the paranormal does not make you so. In fact, it makes you a qualified ‘normal’. As one scholar notes, belief in the paranormal is both normal and deviant.

People from all occupations – not just the poorly educated and the nutty – believe in the paranormal. A 2005 Gallup Poll hinted at this point when it found that three in four Americans held at least one paranormal belief. When it comes to Bigfoot, a 2012 poll found that nearly 30 per cent of Americans believe that the creature is “probably real”, and that Americans are more likely than Canadians to believe in the beast. Another survey found that Americans are as likely to believe in Bigfoot (20 per cent) as they are in the Big Bang Theory, and that they’re only slightly more likely (by 10 per cent) to believe in evolution.

With this information in mind, I am now going to focus on two significant examples – podcasts and the North American Wood Ape Conservancy – that show how the contemporary Bigfoot subculture involves conspiracy beliefs, anti-elitism, a distrust of authoritative institutions, and a longing to get back to nature, all connected via the online world of the Information Age.

**Bigfoot Podcasts**

The digital era of Bigfootery has no precise origin date, but a good starting point is 2002, when Brian Brown, a Minnesota-based digital marketer with an interest in Sasquatch, started the online Bigfoot Forums which still exist as a popular discussion ground for all-things hairy hominid. This

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**LIZARD MAN OF SCAPE ORE SWAMP (USA):** A reptilian humanoid cryptid said to inhabit areas of swampland in and around Lee County, South Carolina, as well as sewers and abandoned subways in towns near the swamp. 2.1m tall, bulky, covered in dark hair with scaly lizard-like skin on its hands, feet and face; three toes on each foot and three fingers on each hand. The creature is very strong, more than capable of ripping into a car. A few witnesses have reported seeing a tail, although in the majority of cases, a tail was not seen.

**MANDE BURUNG (India, Bangladesh):** Ape-like creature from the Meghalaya subtropical forests in the remote Garo Hills of north east India and Bangladesh. Another said to be a surviving form of the giant Pleistocene ape Gigantopithecus.

**MAPINGUARI (also Isnashi - Brazil):** Usually seen in the jungles along the Rio Araguaia, a large river in Brazil’s state of Mato Grosso do Sul. In 1937 one of these creatures went on a three week rampage at Barra das Garas, a small farming town, slaughtering cattle with “super-human strength”, enough to tear out the cattle’s tongues. It has been described as a large foul-smelling nocturnal animal, covered in red hair and with a frightful screaming cry. Its diet ranges from strict vegetarian to twisting the upper skulls of its human victims and sucking up their brains. Also reported to have an extra mouth in the upper jaw, it feeds on humans and has a taste for human flesh.
Man Made

Continued...

forum laid the groundwork for online Sasquatch discussions. From 2006 to 2008, Brown also produced the Bigfoot Information Podcast and, until its demise in April 2015, co-hosted the Bigfoot Show podcast. He was thus an early player in Sasquatch podcasts, which became a major component of the contemporary Bigfoot subculture. Brown will show up again towards the end of this essay.

A perusal through iTunes – the primary depository for podcasts – reveals well over twenty current and defunct podcasts that are specifically devoted to Bigfoot. The number gets bigger when you include the dozens of cryptozoological, paranormal, and monster-themed podcasts. These numbers might seem small, but consider that these podcasts reach tens of thousands of listeners. Podcasts allow Bigfoot enthusiasts to share contemporary wilderness folk tales that have accumulated to create a modern subculture fuelled by the notions that there are still mysteries in the forest, and that powerful forces are conspiring to suppress this truth.

No Bigfoot podcast created a bigger stir than Sasquatch Chronicles, a free weekly show started on November 3, 2013 by Washington State brothers Wes Germer and Woody Pratt along with long-time California-based Bigfoot researcher William Jevning. Sasquatch Chronicles (www.sasquatchchronicles.com) took off in the Bigfoot world largely on the strength of Germer and Pratt’s claims that they experienced a terrifying, full-moonlit encounter with an alleged “hunting group” of Sasquatches during a late-night drive up Washington State’s Yacolt Mountain in November 2012.

Sasquatch Chronicles’ other major draw was its emphasis on the fact that Bigfoot just might kill you. The show was a breeding ground for creepy tales about Sasquatches allegedly attacking and dismembering unlucky outdoor enthusiasts – events supposedly covered up by shadowy government agencies – and these bizarre yarns contributed to the show’s appeal. It became so popular that, in December 2014, the hosts launched a new website based around the podcast and began charging seven dollars a month for exclusive content.

Perhaps not coincidentally, after Sasquatch Chronicles started offering subscriber-only content, the stories discussed on the show became more outlandish, culminating in the conspiracy tales of Bob Garrett.

Bob Garrett is a Texas-based Bigfooter who appeared on the show and claimed that he found a torn up camp in the Sam Houston National Forest (which he filmed and posted on YouTube). He presumed that Bigfoot destroyed the camp, killed the campers, and that government agencies covered it all up. Later, on January 9 and 11, 2014 episodes titled “Down the Rabbit Hole”, Garrett wove an elaborate conspiracy tale. He claimed that a government agency forced him to take down his YouTube videos, covered up the campsite murders, and sent agents out to intimidate him and his family in order to scare him into ceasing his Bigfoot research. So determined was the government to keep Bigfoot a secret that they allegedly hacked into Garrett’s computer and removed all of his evidence of the creature’s existence, including two videos that supposedly depicted two hungry Sasquatches pursuing a group of wild hogs. Other guests on the program asserted that what Garrett experienced was part of a larger Bigfoot cover-up.

Hearteningly, the absurdity of such unsubstantiated claims irked some of Sasquatch Chronicles’ listeners. Show-themed blog discussions and threads...
on Reddit, the popular online social media community, accused the podcast of ‘jumping the shark’ - a desperate move to attract attention - by peddling conspiracy theories. Yet even as some listeners cried foul, many others bought into the wild claims. Fans of the show on Facebook and other online forums believed whole-heartedly that the US government was involved in covering up evidence of Sasquatch and that it had targeted Garrett for some hard-core scrutiny.

Nevertheless, Sasquatch Chronicles’ penchant for spinning wild yarns caught up with the show in March 2015, when critics discovered that there had been no moon on the night that hosts Germer and Pratt had allegedly encountered several Sasquaches bathed under the light of a full moon. It seems their story was bogus. Following these allegations – which host Germer denied vehemently – the show went into free-fall: two of its co-hosts quit, hordes of listeners unsubscribed, and other Bigfoot-related podcasts and forums debated whether this extremely popular Sasquatch podcast was built on a fraud. Yet even as many listeners abandoned the show, many others defended it and its hosts, claiming that critics of the show were either ‘trolls’ or government disinformation agents working to sabotage a podcast that was getting too close to the truth about Bigfoot.

Thus, multiple, interwoven conspiracy theories emerged: the government was conspiring to suppress the truth about Sasquatch; Sasquatch Chronicles’ hosts were conspiring to make money from bogus stories; online trolls were conspiring to destroy the podcast; or government agents were conspiring to destroy the podcast. Despite this brouhaha, Sasquatch Chronicles is still on the air, albeit with a reduced audience and a tattered reputation. The drama over the internet’s most popular Bigfoot podcast demonstrates how the Information Age helped to forge the modern Sasquatch subculture via a potent mixture of wilderness and monster folklore, conspiracies, and dedicated amateurs trying to prove the existence of an animal that science will not acknowledge.

**Wood Ape Conservancy**

For the second example of Bigfootery in the Information Age, permit me to discuss the North American Wood Ape Conservancy (NAWAC, www.woodape.org). Founded in 1999 as the Texas Bigfoot Research Conservancy, this all-volunteer “501(c) (3) tax-exempt non-profit scientific-research organisation” lives by the following mission statement: “To investigate and conduct research regarding the existence of the unlisted primate species we refer to as the wood ape, also known as the sasquatch or bigfoot; to facilitate scientific, official and governmental recognition, conservation, and protection of the species and its habitat; and to help further factual education and understanding to the public regarding the species, with a focus on the continent of North America.”

The group conducts extensive, multi-month field investigations in Texas and Oklahoma, and its members’ primary research spot is a remote section of Oklahoma’s Ouachita Mountains that they call “Area X.” They also host an annual Texas Bigfoot conference that draws hundreds of attendees. Brian Brown, the podcaster whom I already mentioned, is a member of the group who often acts as its spokesperson, particularly through podcasts. While the organisation makes Texas its home base, it has members across the US, thanks to connections forged via the online Bigfoot subculture. In contrast to Sasquatch Chronicles, NAWAC is downright dull. It does not court media attention, and rejects any notions of conspiracies and Sasquatch being “paranormal”. It conducts field investigations with the sole intent of collecting a specimen for scientific recognition.

In March 2015, NAWAC released its Ouachita Project Monograph, a staggering detailed, 221-page report summarising the background, hypothesis, methodology and findings
Man Made
Continued...

from its four-year long (12,000 hours, but still on-going) Area X field investigations. Although the group has collected no physical evidence of Bigfoot, the report documents personal experiences of the alleged creatures tossing rocks at a cabin, using rocks to crush nuts, leaving tracks, using branches to knock on trees (wood-knocking), and making strange vocalisations. Members of the group also claim to have seen the creatures; one even said that he witnessed chimp-like juveniles.

While it is easy to dismiss a pay-to-listen podcast like Sasquatch Chronicles as the work of either con artists or nutcases, NAWAC is more perplexing. While members eschew the blustery anti-elitism of past Bigfooters such as Krantz and Dahinden, this group nonetheless fits within the Bigfoot subculture tradition of dedicated amateurs researching what professionals ignore. Only a few of the NAWAC members are trained in ecology and/or biology, but they strive to emulate, to the best of their abilities, the work of these disciplines. Instead of publically railing against elites, the NAWAC is combating the scientific professions’ conspiracy of silence on the Bigfoot topic by doing their fieldwork with a determined stiff upper lip.

WHY DO THEY BELIEVE?
The Information Age keeps the Bigfoot subculture alive via the shared digital transmission of stories, reports and connections. Yet, subcultures still need common beliefs in order to thrive, so the question remains, why do people believe in Sasquatch? I think the answer lies within the confluence of multiple social, technological and cultural factors.

Pseudoscience taps into biologically innate human conceptions about the world. These conceptual frameworks are inherently intuitive (knowledge acquired without reason or inference) and they manifest as various forms of folk belief because they get to us before science does. For example, most people are raised with religious beliefs – among the most powerful of intuitive conceptual frameworks – before they are introduced to a scientific worldview. Such intuitive frameworks are irrational, but they are also more ingrained. Feelings and cultural memes shape these frameworks, and it takes effort to shake them off with reasoned scientific inquiry. Moreover, scientific inquiry may challenge people’s deeply felt assumptions, which is why many people do not want to shake such assumptions off.

Pseudoscientific and paranormal beliefs, then, “cluster around cultural attractors formed primarily by their intuitive appeal, unfettered by the institutional safeguards and reality checks cultivated by science”. The notion of the Wildman is a worldwide cultural meme. Every society has a Wildman myth because it taps into the intuitive ‘memory’ of the evolutionary human past: a past before civilisation, as we know it, a past that represents the human connection to the land and to the forest. Technology and urbanisation are gradually eroding the cultural memory of this past, which Bigfoot embodies. The Sasquatch hunters of the classic era, as well as the audience for Sasquatch Chronicles and the members of NAWAC are looking for a monster that allegedly exists in the shadows of a predominantly urban mass culture that seems to harbour no more wild mysteries.

Because science must compete with this intuitive yearning to re-establish a human connection to the wild, Bigfoot believers have always mistrusted scientific authorities, whom they often view as conspiring against the search for Sasquatch. This is why the Bigfoot subculture has always been ripe with conspiratorial thinking. Studies have shown a positive correlation between pseudoscientific and conspiratorial beliefs, since “a greater propensity toward intuitive thinking” may incline
people toward belief in “a diverse set of unsubstantiated claims”. Bigfooters have always believed that authority figures were conspiring against them. Rene Dahinden and Grover Krantz were suspicious of scientists, while contemporary Bigfooters are suspicious of scientists and the government. In addition, the “self-sealed nature” of pseudoscientific beliefs makes them ripe for internal disruptions, which is why infighting and backstabbing has always plagued Bigfootery.

The Sasquatch Chronicles story of government technology stifling the efforts of boots-on-the-ground, old-school wildlife tracker Bob Garrett is a tale of the new order triumphing over the old one; the modern world’s assault on what remains of humanity’s need to re-connect with its wild past. Of course, the irony is that digital technology allows the Bigfoot subculture to connect and thrive, and it allows Bigfooters to spread information instantaneously about those conspiring against them.

By combining a desire to get back to nature with a suspicion of authority, Bigfooters are reflecting broader trends in society in general.

For example, the Earth Institute at Columbia University has warned that, for various reasons pertaining to physical and psychological health, humans should reconnect with nature in a world that is getting more urbanised. The need to reconnect with nature is real, even if Bigfoot is not. In addition, recent surveys show that about 10 per cent of Americans subscribe to a wide range of conspiracy theories, but the percentage grows when pollsters ask Americans if they are suspicious of government and other authorities. This fits with a 2014 Gallup poll that found Americans’ confidence in authoritative institutions is in decline across the board.

In a cultural environment where humans are growing distant from nature and authoritative institutions are losing their credibility, it is no wonder that some people seek out Bigfoot. This creature roams freely in the wild, obeys no authority but its own, and seemingly makes its presence known only enough to tantalise those humans who want to believe that monsters still dwell in the earth’s last remaining wild places.

CONFIRMATION BIAS

The other factor likely at play with Bigfooters, especially NAWAC, is confirmation bias, defined as “the seeking or interpreting of evidence in ways that are partial to existing beliefs, expectations, or a hypothesis in hand.” We are all guilty of this at times, but Bigfoot believers are susceptible to the influence of several external experiences (such as the desire to connect to the wilderness) that culminate to strengthen their will to believe. After all, confirmation bias preferences beliefs already held to be true.

Moreover, studies show that, thanks to confirmation bias, when presented with evidence that disproves their deeply held beliefs, people tend to become more entrenched in those beliefs, since changing them would require a shift in underlying attitudes. Thus, Bigfooters believe in large part because they want to believe. They dismiss the overwhelming evidence that Bigfoot does not exist and instead insist that if scientists just looked harder, they would find the beast.

NAWAC’s evidence so far rests entirely on personal experiences, a fact that it readily admits. But what to do with the fact that members have literally spent years in an Oklahoma forest where they claim to have encountered giant, undiscovered, bipedal primates?

There are four possible scenarios here: they are lying; they are being hoaxed; they are actually seeing an unknown animal; or they believe that they are seeing an unknown animal. The first
YETI (Nepal, Tibet, Bhutan): Said to inhabit the Himalayan region of Nepal and Tibet, the Yeti is one of the most famous creatures of cryptozoology. The name “Abominable Snowman” was coined in 1921, the same year Lieutenant-Colonel Charles Howard-Bury led the 1921 British Mount Everest reconnaissance expedition. In his book of the expedition, Bury included an account of crossing the Lhakpa La at 6,400m where he found footprints he believed “were probably caused by a large ‘loping’ grey wolf, which in the soft snow formed double tracks rather like those of a bare-footed man”. He added that his Sherpa guides “at once volunteered that the tracks must be that of ‘The Wild Man of the Snows’, to which they gave the name ‘metoh-kangmi’.” Metoh translates as “man-bear” and Kang-mi as “snowman”. A supposed scalp of the Yeti has been identified as possibly a coarse-haired hoofed animal.

YOWIE (Australia): Reputed to live in the Australian bush, especially in the eastern states. The creature has its roots in Aboriginal oral history, though the name “yowie” possibly comes from the English word “Yahoo”. Usually reported to be between 2.1m and 3.6m, the feet are said to be much larger than a human’s, but alleged tracks are inconsistent in shape and toe number. Some report the yowie can seem timid or shy; others that the yowie is sometimes violent or aggressive.
Brain testers

CRYPTIC CROSSWORD no 27

ACROSS
1. Learned people hobnobbing with aristocracy. (5,7)
6. Old Welsh way of expressing pain. (2)
9. Place name where you can horse with Bond’s boss. (7)
11. One tertiary institute has a nervous reaction to anything marine. (7)
12. No sir, it’s the Stanford Research Institute. (1-1-1)
13. The right throws out any bad ones. (7)
15. A small egg, for example. (1-1)
17. Hydrophobic interaction chromatography initiated a spasm. (3)
18. Result of this. (6)
19. Hilly hole found in a briar patch. (4)
21. A winding lane makes you tend to one side. (4)
22. There’s a way! Why? I don’t care. (6)
23. A little relation backs the French right. (3)
25. Could be back for a quintillion bytes. (1-1)
26. A place to hide senior ministers. (7)
27. United artists are found in Old Egypt and Syria. (1-1-1)
29. Norma Jean was not the author of the doctrine. (7)
30. The Pharaoh lived where the King was buried. (7)
31. A measure exists to be noted? (1-1)
32. Not surprising that a part is angry when sliced. (12)

DOWN
1. Heard that a rich man angers the spawn of an FRS. (10)
2. A laundry basket of time in space. (5,3)
3. Honour and love a measure. (1-1-1)
4. Do actions wane when an FRS? (5,6)
5. It’s rum to be obvious. (6)
7. Rhotacistic Rick burns the midnight candle. (4)
8. When it’s 22 hundred, the area is FRS. (12)
10. Vic’s pick for RFRS. (5,6)
14. Jesus’s dad deposits FRS. (6,5)
16. Roll-by bins used for FRS. (4,5)
20. City mess across the whole operation. (8)
24. Visionary leader puts you before the French right. (7)
28. A sign to love blokes. (4)
30. The Material Research Society is the place for a married lady. (3)

DR BOB’S QUIZ

1. The earliest recorded garden gnome was one placed by Sir Charles Isham in 1847 – why did he do that?
2. Why did the clock on the UK Houses of Parliament (“Big Ben” is the hour bell) fail to keep correct time at one point in 1945?
3. The most decisive election result in history was in North Korea with 100.00% turnout and 100.00% vote for the Workers Party. When & where was the second most decisive election result in history?
4. To which man have the most statues been raised?
5. Willie Darden killed a shopkeeper in 1973; he was interviewed for TV some time before being executed. What happened, that interrupted this interview?

Answers on page 62
Anti-vaccination campaigner Meryl Dorey is on record as saying that we should “do our own research” instead of accepting what the doctors and other qualified experts tell us. Seasoned skeptics will be aware that “Do your own research!” is a common response used by cranks and conspiracy theorists to those who dare to doubt their claims. It is a convenient escape hatch they use when trying to win a debate without the bothersome burden of providing their own evidence.

Of course, what they mean by this exhortation is not to do any actual scientific or medical research. It takes a bit of tertiary education to be able to do that. For them, “research” means nothing more than googling for an hour or so on the Internet. They naively equate such googling with the years of study and experience it takes to become a qualified expert. Their message is that anybody with internet access can become an instant but unqualified expert on anything. Or worse still, that expertise doesn’t even count – all opinions are equal.

The reality is that googling is a notoriously unreliable source of information – there are sound reasons why Wikipedia is not allowed to be cited as a source in university assignments. The problem is that without expertise in the field in question, few googlers are capable of knowing which sources are reliable and which aren’t. Anything found on the internet becomes ‘knowledge’. Mere opinions become ‘facts’.

Another problem is that googlers are often unaware of the wider knowledge context of the specific pieces of information they have found on the internet. Experts are as much aware of what they don’t know as what they do know. As Professor Stephan Lewandowsky of the University of Bristol has said: “Here is the catch: to know how much more there is to know requires knowledge to begin with. If you start without knowledge, you also do not know what you are missing out on.”

This paradox gives rise to a famous result in experimental psychology known as the Dunning-Kruger Effect. Named after Justin Kruger and David Dunning, it refers to a study they published in 1999. This study found that people who lack the knowledge or wisdom to perform well are often unaware of this fact. This is almost more dangerous than complete ignorance, because unlike Donald Rumsfeld, they don’t even know what they don’t know.

Professor Tom Nichols, a US national security expert, wrote last year about the “death of expertise”: a Google-fuelled, Wikipedia-based, blog-sodden collapse of divisions between professionals and amateurs, teachers and students, knowers and wonderers – between those with any expertise in an area and those with none at all. He sees this situation as not only a rejection of knowledge, but also the processes of knowledge acquisition – a rejection of science and other pursuits of rationality.

Nichols is particularly critical of otherwise intelligent people who are “doing their own research” on the internet and second-guessing their doctors by refusing to vaccinate their children, leading to an entirely avoidable resurgence of dangerous infectious diseases such as whooping cough and measles.

So how did it all come to this sorry state of affairs? I think that there are

**Who needs**

Tim Harding looks at the rejection of expertise and the rise of the ‘self-informed’ amateur.
The links between smoking and cancer were widely accepted as facts rather than opinions.

MISUNDERSTANDING DEMOCRACY
Reducing the influence of experts is sometimes mistakenly described as “the democratisation of ideas”. Democracy is a system of government – it is not an equality of opinions. While the right of free speech prevents governments from suppressing opinions, it does not require citizens to treat all opinions equally or even take them into account. Equal rights do not result in equal knowledge and skills. As Professor Brian Cox has said: “The problem with today’s world is that everyone believes they have the right to express their opinion and have others listen to it. The correct statement of individual rights is that everyone has the right to an opinion, but crucially, that opinion can be roundly ignored and even made fun of, particularly if it is demonstrably nonsense!”

Deakin University philosopher Dr Patrick Stokes has argued the problem with “I’m entitled to my opinion” is that it has become shorthand for “I can say or think whatever I like” without justification; and that disagreement is somehow disrespectful. Stokes suggests that this attitude feeds into the false equivalence between experts and non-experts that is an increasingly pernicious feature of our public discourse.

Professor Michael Clark of LaTrobe University gives an example of a public meeting recently, when a participant asked a question that referred to some research, a senior public servant replied: “Oh, everyone has a scientific study to justify their position, there is no end to the studies you could cite, I am sure, to support your point of view.” Clark describes this as a cynical statement, where there are no absolute truths and everyone’s opinion must be treated as equally valid. In this intellectual framework, the findings of science can be easily dismissed as one of many conflicting views of reality.

basically four contributing factors: the blurring of facts and opinions; a misunderstanding of ‘democracy’; a misunderstanding of the argument from authority; and the dissipation of media accountability. I will now discuss each of these factors in turn and then outline some benefits of listening to experts.

BLURRING FACTS AND OPINIONS
According to the Stanford Encyclopaedia of Philosophy, a fact is a state of affairs that is the case. The usual test for a statement of fact is verifiability; that is, whether it can be demonstrated to correspond to experience. Scientific facts are verified by repeatable careful observation or experiment. In other words, a fact is that which makes a true statement true. For instance, the statement “It is raining” describes the fact that it actually is raining. The rain that falls can be objectively measured in a rain gauge – it is not just a matter of opinion.

On the other hand, an opinion is a judgment, viewpoint, or statement about matters commonly considered to be subjective, such as “It is raining too much”. As Plato said: “Opinion is the medium between knowledge and ignorance”.

The last few decades have seen the growth of a postmodernist notion that truth is culturally relative and that all opinions are equal. What’s worse is a gradual blurring of the important distinction between facts and opinions. A disturbing feature of the public debate about climate change is the confusion between science and policy. Because they conflict with some political policies, there is a tendency for the findings of climate scientists to be treated as “just another opinion”. This is a marked change from a few decades ago, when the findings of epidemiologists about the links between smoking and cancer were widely accepted as facts rather than opinions.
Who needs to know?

Continued...

MISUNDERSTANDING THE ARGUMENT FROM AUTHORITY

A common response from cranks and conspiracy theorists (and even some skeptics) to citations of expertise is “that’s just the argument from authority fallacy”. Such a response ignores the obvious fact that all scientific papers and other forms of academic writing are chock full of citations of experts. The notion that the written outputs of the world’s universities and scientific institutions are all based on a logical fallacy is a pile of preposterous piffle. Anybody who thinks that has clearly not thought through the implications of what they are saying.

The argument from authority is often misunderstood to be a fallacy in all cases, when this is not necessarily so. The argument becomes a fallacy only when used deductively, or where there is insufficient inductive strength to support the conclusion of the argument.

The most general form of the deductive fallacy is:

• Premise 1: Source A says that statement p is true.
• Premise 2: Source A is authoritative.
• Conclusion: Therefore, statement p is true.

Even when the source is authoritative, this argument is still deductively invalid because the premises can be true, and the conclusion false (ie an authoritative claim can turn out to be false). This fallacy is known as appeal to authority.

The fallacy is compounded when the source is not an authority on the relevant subject matter. This is known as argument from false or misleading authority.

Although reliable authorities are correct in judgments related to their area of expertise more often than laypersons, they can occasionally come to the wrong judgments through error, bias or dishonesty. Thus, the argument from authority is at best a probabilistic inductive argument rather than a deductive argument for establishing facts with certainty. Nevertheless, the probability sometimes can be very high – enough to qualify as a convincing cogent argument. For example, astrophysicists tell us that black holes exist. The rest of us are in no position to either verify or refute this claim. It is rational to accept the claim as being true, unless and until the claim is shown to be false by future astrophysicists (the first of whom would probably win a Nobel Prize for doing so). An alternative explanation that astrophysicists are engaged in a worldwide conspiracy to deceive us all would be implausible and irrational.

As the prominent British environmental activist Mark Lynas has said “If an overwhelming majority of experts say something is true, then any sensible non-expert should assume that they are probably right.”

Thus there is no fallacy entailed in arguing that the advice of an expert in his or her field should be accepted as true, unless and until it is effectively refuted. A fallacy only arises when it is claimed or implied that the expert is infallible and that therefore his or her advice must be true as a deductive argument, rather than as a matter of probability. Criticisms of cogent arguments from authority can actually be a rejection of expertise, which is a fallacy of its own.

The argument from authority is sometimes mistakenly confused with the citation of references, when done to provide published evidence in support of the point the advocate is trying to make. In these cases, the advocate is not just appealing to the authority of the author, but providing the source of evidence so that readers can check
DISSIPATION OF MEDIA ACCOUNTABILITY

I have no doubt that the benefits of the internet generally outweigh the costs. However, there are some downsides that need be considered rather than just glossed over. An obvious negative is the decline of newspapers and competent professional journalism. Specialist science or medical journalists are a rarity these days. Generalist journalists often get their science stories wrong, or engage in misleading false balance – the equating of professional expertise with amateur ignorance.

Another problem is the blurring of the distinction between journalism and blogging, and I say this as a blogger myself. Unlike bloggers, journalists are subject to professional standards and editorial control. Some bloggers are anonymous, which removes their accountability to even their own readers for the accuracy of what they write.

There is a risk that when non-experts google, they are inclined to give equal weight to information from both professional journalists and amateur bloggers, regardless of its reliability and accuracy.

BENEFITS OF EXPERTISE

While experts are human and can mistakes, they have a pretty good batting average compared to laypersons. The advice that experts provide is far more likely to be true than advice from non-experts in the field in question. This has obvious benefits for society as a whole, for example in terms of public health and safety, environmental protection and managing the economy. There are good reasons why we don’t let amateurs design aircraft, bridges and tall buildings. But there are also some major benefits for the individual in listening to advice from experts as opposed to non-experts.

For instance, if you trust your doctor, you’re actually more likely to do better when you’re sick, according to a study recently published by General Hospital Psychiatry. This study, of 119 people with either breast, cervical, intestinal or prostate cancer, found that from three months following diagnosis, those patients who did not trust their doctors were not only more distressed but also more physically disabled. They were less likely, for example, to be able to go for long walks or take care of themselves. Patients who felt anxious about being rejected and abandoned suffered the most from not trusting their doctors.

Trusting your doctor has clear health benefits. You’ll be more likely to try new drugs, follow your treatment plan (jointly agreed with your trustworthy doctor), share important medical information, take preventative measures (eg screening) and have better-controlled diabetes and blood pressure.

Up to half of the failures in treatment reported by patients are due to not following the regime suggested by doctors. This increases the risk of hospitalisation and extended ill health. Another study at the University of California has found a small but statistically significant association between how much patients trusted their doctors and how much their symptoms improved within two weeks (allowing for different factors that could have influenced the outcome).

As Professor Michael Clark has said, people who use Dr. Google to diagnose their symptoms before visiting an actual doctor, sometimes ask to be tested for diseases they do not have, or waste time seeking a second opinion because they are convinced that their ‘research’ has led them to a correct diagnosis. If it were really that easy, would doctors have to spend all those years in medical school?

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Hinnen et al. “Lower levels of trust in one’s physician is associated with more distress over time in more anxiously attached individuals with cancer”. Gen Hosp Psychiatry. 2014 Jul-Aug;36(4):382-7.


One of the most personal things to a soldier is the service number that is allotted at the time of enlistment - the number is unique to the soldier, follows the soldier from enlistment to death or discharge, and following service remains archivally important and unique forever.

This article addresses (skeptically) an aspect of the numbers allotted to members of Australia’s all-volunteer overseas expeditionary force during the Great War (1914-1918), the Australian Imperial Force, or AIF. The matter being addressed is the mystical number so beloved of numerologists, Satanists, conspiracy theorists, etc - ‘666’, the so-called Number of the Beast.

The Number of the Beast, as we all know, comes from a line in the Biblical Book of Revelation, and is supposedly a mark of evil, commonly associated by many with the Antichrist. As an aside, there is scholarly dispute over whether the number in Revelation is 666 or 616, this being dependent on what original text you refer to; for the purposes of this exercise, however, the number 666 is used, as it is the one most firmly fixed in popular imagination.

A number? Big deal, we might say. Certainly, if you are a religious non-believer or even a normal “I go to church at Easter and Christmas and I’m not really waiting for the Second Coming” type of Christian, the Number of the Beast is nothing more than an interesting fact about the nature of the Bible, and possibly how it was translated. If, however, you are trying to predict the ‘End of Times’, or assign Antichristhood to an individual, say, for example, a certain darker skinned elected leader of a leading world power, and you believe that the Bible is inerrant, it suddenly matters a lot.

BEASTLY SOLDIERS
What has this to do with the AIF? The answer to that is that, on enlistment, every soldier of the AIF (not officers or nurses) was allotted a personal number. Personal, or “regimental”, numbers had been introduced into the British Army in the 1840s as a means of more accurately accounting for soldiers and of controlling fraud and theft on the part of commanding officers, recruiting officers, quartermasters and paymasters. The Australian Army followed suit and both permanent and part-time soldiers were officially allotted regimental numbers from at least 1908.

When the AIF was raised it could not use the existing numbering system of either the Permanent Military Forces or the Citizen Forces and thus established its own numbering system. In broad outline, the AIF’s system decreed that every infantry battalion and regiment of light horse would have a series of numbers commencing at 1 and continuing ad infinitum, while the other arms and corps of the force would each use the same system, but for the whole army or corps, not for individual units. Thus, with 60 infantry battalions and 15 light horse regiments eventually on the order of battle, there should have been at least 75 men with the number 1. In fact, “What leaps out about these men marked with the number of the beast is their sheer ordinariness.”
The Skeptic

September 15

three served in the Machine Gun Corps; one served in a light trench mortar battery; two were artillerymen; five served in the light horse; one served with the Cyclist Corps; two were tunnelers; one served with a railway unit; one was in the medical corps; two were in the Army Service Corps; one served in the Australian Flying Corps; and one served with the Remount Depot.

Civil employments included:
- three plumbers;
- five clerks;
- six farmers; and
- nine labourers.

Religious denominations included: Church of England (24); Catholic (12); Presbyterian (9); Methodist (4); Baptist (2); one Congregationalist; one Churches of Christ; and one Jew.

Two men served under assumed names.

As to their various fates, six were killed in action; three died of wounds; one died of illness; one was taken prisoner of war and survived; one died on service immediately after the war having re-enlisted in the permanent forces; and 20 were discharged “medically unfit” as a result of either wounds or illness (two of these 20 subsequently re-enlisted in Australia for service with the Tropical Force in German New Guinea).

Two men on the list attained commissioned rank and three were awarded decorations, all for gallantry.

If we are to give credence to the darkly magical power of the Number of the Beast, then we must assume that some, or all, of these men were evil or at least touched by evil. Were they?

The records show that, between

Left: Pieter Bruegel the Elder, “The Fall of the Rebel Angels”, 1562 - the real satanic beasts are beaten back by the good guys


Santa Claus has gone to War!
The Devil’s Brigade

Continued...

them, the 54 men accumulated 20 convictions for absence without leave; six for absence from parade; three for drunkenness; three for “neglect to the prejudice of good order and military discipline”; two for “conduct to the prejudice of good order and military discipline”; one for an “act to the prejudice of good order and military discipline”; and one for making a false statement. Three men were hospitalised for venereal disease. In total, the various offenders were sentenced to 138 days detention; 126 days Field Punishment No.2; three days confined to barracks; one reprimand; one admonishment; and one reduction to the ranks, along with monetary fines and forfeitures of pay.

Apart from the false statement, which consisted of giving a fake name to a military policeman, none of the offences committed was serious (bearing in mind that, among other things, three members of the AIF were hung for murder and a number were sentenced to life imprisonment for offences including murder, manslaughter and rape). Certainly, none of the offences was worthy of the Antichrist and none appeared to have opened the Hell Mouth.

What in fact leaps out at one about this group of men who had been ‘marked with the Number of the Beast’ is their sheer ordinariness. The group is actually a microcosm of the AIF, almost perfectly reflecting, for example, the statistical norm in terms of place of enlistment.

If we look at religious denomination, in 1914 the two largest Christian denominations in Australia were the Church of England (50% of the national population) and Catholics (20% of the population); if we look at the list above we see that Church of England members represent 47% of the list (near enough not to matter) and Catholics 22%. Statistics for the other religious denominations show the same trends, although the most interesting statistic can be ascribed to...
the ‘traditional’ Antichrist, the Jewish people. Australia’s tiny 1914 Jewish community represented just 0.36% of the national population, yet 7% of that population, 1 in 14 of every Jew in Australia, enlisted into the AIF. Benjamin Aaron Joseph, the sole Jew with the personal number 666, represents 2% (roughly) of the men allotted the Number of the Beast. Far from being a bad soldier or evil person, Joseph was a good soldier (who did, it must be admitted, manage to have a couple of minor brushes with military law) and he certainly does not appear to have been the cause of plague, pestilence, rains of fire and brimstone or any other portents of the ‘End of Times’ (none that I can find anyway).

The same can be said of all of the others – the deaths of nine of the men during the war did not lead to a cataclysmic end of the world. Nor did the death of former-666 Sergeant Air Mechanic Abner Gilchrist Dalzell in 1920, even though Dalzell, when he had re-enlisted into the PMF Army Air Corps (forerunner of the RAAF), demonstrated an obvious exercise in cosmic bad humour, having been allotted the regimental number ‘13’ (key doom laden music!).

So, what can we say from all of this? If we are to believe those who see the cataclysmic end of the world and nothing but evil connected with the number 666, then we must somehow demonstrate that the 54 men of the AIF who carried that number with them throughout their service were doom laden, or evil, or both. Yet examination of the records shows this not to be the case. These 54 young (and a couple of not so young) men were a bog standard group of the AIF, who statistically reflected the norms of the force. They enlisted for 54 different reasons, went away, and did their duty (usually) to the very best of their abilities.

Ten of them gave their lives during the war and one immediately after. Not a huge number, I suppose. However, that is three Australians who now lie forever on the Gallipoli Peninsula (one of them listed as “known to be buried in this cemetery”), one in Egypt, five in France or Belgium (four of whom have no known grave and are commemorated on either the Menin Gate or Villers-Bretonneux Memorials to the Missing); and two (including Dalzell in 1920) whose only known grave is the sea.

I hope they carried their service number with pride instead of with fear or superstition. Lest We Forget.

My previous logical fallacy for this column (The Skeptic, June 2015) concerned the “false dilemma”. In some ways, the false equivalence fallacy is the direct opposite of a False Dilemma.

False equivalence is an informal fallacy that describes a situation where there is an apparent similarity between two things, when in fact they are not equivalent. The two things may share some common characteristics, but they have important differences that are overlooked for the purposes of the argument.

The pattern of the fallacy often looks like this: if A has characteristics c and d, and B has characteristics d and e, then, since they both have characteristic d, A and B are equivalent. In practice, often only a passing similarity is required between A and B for this fallacy to be committed.

The following statements are examples of false equivalence:

“They’re both soft, cuddly pets. There’s no difference between a cat and a dog.”

“We all bleed red. We’re all no different from each other.”

“Hitler, Stalin and Mao were evil atheists; therefore all atheists are evil.”

False equivalence is occasionally claimed in politics, where one political party will accuse their opponents of having performed equally wrong actions. Politicians may also accuse journalists of false equivalence in their reporting of political controversies if the stories are perceived to assign equal blame to opposing parties. However, false equivalence should not be confused with false balance – the media phenomenon of presenting two sides of an argument equally, disregarding their merit and/or evidence (a form of argument to moderation).

Moral equivalence is a special case of false equivalence where it is falsely claimed, often for ideological motives, that both sides are equally to blame for a war or other international conflict. Historical evidence shows that this is rarely the case.
Stitched Up

Sarah Malcher unstitches the world of organic fibres.

If you regularly shop online or frequent major department stores you may have noticed that ‘organic’ products, already scattered across your local supermarket shelves, have now infiltrated your nearest clothing retailers. No longer are we to restrict our concern with what we put into our bodies; we are now advised to be more discerning of what we wear on them. However, for skeptical clothing consumers, unpicking the benefits and claims increasingly attributed to organic fabrics is made difficult by the lack of evidence and research in this field, as well as the buzzwords and half-truths associated with the organic movement.

One of the biggest obstacles to understanding what you are buying under an ‘organic’ label is the fact that in Australia, organic certification and labelling is largely a self-regulated and voluntary process. There is no government-prescribed, compulsory standard regulating the advertising of organic material. However, the ACCC notes that businesses making an ‘organic claim’ must be able to substantiate their claim, and that any product labelled as “certified organic” must have the advertised certification from one of several approved private certifying bodies.

Australian Certified Organic is Australia’s largest certifier, and its Australian Certified Organic Standard (ACOS) references the recommended standard found in Standards Australia AS 6000-2009 Organic and biodynamic products, the DAFF National Standard for Organic and Bio-dynamic Produce, and global trends in organic certification. Alternatively, fabric importers and distributors often verify certification in accordance with the Global Organic Textile Standard (GOTS), which currently has 16 approved certification bodies (although none of these is Australian-based) and has gained international name recognition since its introduction in 2006 by the International Working Group on Global Organic Textile Standards.

The problem is that certifying bodies have varying standards of qualification, particularly in relation to the quantity of permissible chemicals that may be used in the processing and dyeing of fibres in order for the produced fabric to qualify for certification. This is further complicated by different countries’ labelling requirements. For example, United States labelling regulations distinguish between apparel that is labelled 100 per cent organic cotton, “organic cotton” (95 per cent blend) or “made with organic cotton” (70 per cent blend).

Despite these varying standards, common defining elements of organic fabrics are that they are textiles that have been produced under organic farming and treatment conditions, and include fibres from cotton, wool, linen, hemp, soy and bamboo. Broadly
defined, organic farming of cotton and other flax plants differentiates itself from conventional farming by eschewing GMO seeds as well as ‘synthetic’ fertilisers, pesticides and herbicides.

In the case of animal-produced fibres, such as wool, livestock are raised with minimal use or exposure to ‘synthetic’ chemicals and pastured on farmland that has not been treated with ‘synthetic’ products within a particular time frame. For example, Australian Organic Wool notes that its farming methods include “clean pasture management, attention to soil health, environmentally sound stock ratios, good nutrition, and herbal and homeopathic[!] treatments”.

The treatment processes of both plant and animal fibres are then carried out in a way that minimises chemical contamination of the organic product. Throughout the organic fabric movement there is a reiteration of notably vague terms including “pure”, “clean”, “sustainable”, “healthy” and “eco-friendly”.

The increasing use of organic fabrics in apparel, manchester and upholstery over the last 15 years reflects a shift in many developed countries towards a more health-conscious and environmentally-conscious marketplace. However, consumers are frequently willing to pay a premium price for a ‘better’ product without necessarily having a full understanding of whether the perceived advantage is science-based or merely marketing hype.

Previously the reserve of niche and independent designers, it is now common for numerous high-end and mainstream designers, brands and clothing retailers (including Target, H&M, Wal-mart and Nike) to offer 100 per cent organic clothing and textile products, or incorporate organic-blend fabrics into their fashion line.

For example, Nike currently categorises organic cotton as an “environmentally preferred material” (EPM), and has been integrating organic cotton blend fabric into its clothing line since 1997 and offering 100 per cent organic fabric apparel since 2002. The company’s most recently published Sustainable Business Performance Summary (for the 2012-2013 financial year) claims that 11 per cent of Nike total cotton use is organic, and that 88 per cent of its cotton apparel included at least 5 per cent organic cotton. Nike’s 2009 Corporate Responsibility Report set the goal of using a minimum 10 per cent organic blend cotton across its cotton clothing range by 2015 and its corporate PR machine suggests that it is on track to achieve that.

**WHY ORGANIC?**

The arguments made by advocates of organic textiles can be broken down into environmental, ethical and, more recently, health claims.

Interest groups who champion the environmental benefits of organic fabric reiterate many of the common arguments made by the broader organic farming movement, particularly the contaminating and toxic effects of synthetic chemical treatments (as opposed to ‘natural’ pesticides and herbicides) on the soil, crops and livestock.

The uncritical public perception of the environmental superiority of anything labelled organic, despite the ongoing vigorous debate and absence of any scientific consensus on this view, is exactly what some of the major retailers have latched onto. H&M, one of the world’s largest economic users of organic cotton, markets its organic fabric business model by stating “We’re willing to pay more for [organic cotton] because it’s grown without chemical pesticides and fertilisers, and contains no genetically modified organisms (GMOs). That’s good news for farmers, the environment, and for you.”

H&M’s marketing conflates environmental conscientiousness with social and economic responsibility. When a visible effort is being made by designers and retailers to monitor the farming and processing methods, consumers may also assume that the effort will extend to verification of the conditions in which the clothing is sourced and manufactured. However, recent investigations into the conditions of organic, eco-friendly and fair-trade farming and manufacturing in developing countries has challenged this assumption.

The 2011 Bloomberg investigative report revealed that the ‘fair-trade, organic cotton’ used in clothing by the lingerie company, Victoria’s Secret, was largely produced under conditions involving child labour. In addition to prompting an inquiry by the United States ICE Homeland Security Investigations division, the report drew attention to the need for greater transparency in order to prevent exploitation in mass clothing manufacturing, which often involves levels of sub-contracting regardless of whether the fabric used is conventional, organic, or blended.

**CARRY ON REGARDLESS**

Despite the lack of any supporting scientific evidence, some advocates, organisations and designers also argue that organic fabric is a healthier choice for consumers, with alleged benefits ranging from allergy to cancer prevention due to the absence of residual pesticides, carcinogens and ‘toxins’.

The Australian-based Organics Institute states on its website that “All the ‘nasty’ chemicals used in the processing of conventional cotton are prohibited in organic cotton processing. Only certain biodegradable, low impact dyes and oxy, hydrogen peroxide bleach [sic] are allowed in organic certification. Therefore, organic cotton is non-toxic and hypoallergenic, thus ideal for those with allergies and chemical sensitivities.” However, the claim is not supported by any reference or links to peer-reviewed scientific studies. An article published by Mother Earth News called “Why Organic Cotton is Better” refers to claims that “organic cotton products are softer..."
and easier on your skin” but likewise provides no supporting sources.

In 2008 the popular lifestyle magazine Natural Life published an article claiming that synthetic clothing, including acrylic, nylon, polyester and vinyl, as well as poly-cotton bedding, contain formaldehyde and stated that “Formaldehyde resin in these fabrics can cause fumes which can cause cancer, respiratory problems, allergies, asthma, cough, fatigue, headaches, insomnia, restless sleep, skin rashes and several other illnesses.” While the article noted that “tests can and have been performed to detect the chemical residues in textiles” the only source cited was The International Association for Research and Testing in the Field of Textile Ecology, a Switzerland-based independent textile certifying body responsible for establishing an independent testing and certification system (the Oeko-Tex Standard 100). Despite containing many factsheets, their website does not include links to any peer-reviewed studies, either conducted by or relied upon by the association.

There are reports of people who have been diagnosed with contact dermatitis induced by an allergy to formaldehyde resins in fabrics, and who may therefore benefit from wearing fabrics that have not been treated with chemicals that may induce an allergic reaction. Nonetheless, a 1998 joint-study by the Northwestern University Medical Center of Chicago, University of Illinois Medical Center and Eastern Michigan University measured formaldehyde in textiles produced in several countries, and found that half of the textiles tested showed no detectable levels of formaldehyde and the remaining fabrics showed far lower levels of formaldehyde resins than reported in studies done in the 1950s and 1960s, when contact dermatitis in reaction to formaldehyde came to the attention of the medical community. In addition, the fabrics that tested positive for formaldehyde only provoked an allergic response in 20 per cent of the subjects, all of whom were selected due to being sufferers of formaldehyde-induced contact dermatitis when exposed to higher levels. The study did not differentiate between organic or conventionally manufactured fabrics, but surmised that modern changes in textile processing has minimised allergy-inducing levels of formaldehyde in clothing textiles and concluded that “our results demonstrate these garments are uncommon and probably do not explain current reports of clothing-related contact allergy”.

Nonetheless, the idea that chemical residue in conventional fabrics, particularly formaldehyde resins, is unanimously harmful to our skin has persisted into more recent times. In 2013 the Huffington Post published an article headlined “Protecting our Planet and Protecting Ourselves: The Importance of Organic Cotton” which raised the issue of health benefits to consumers in addition to the environmental and economic arguments regularly espoused by proponents of organic textiles. The article argues “We even feel the harmful effects of non-organic cottons and fabrics in our daily lives. Irritated skin, rashes and even headaches and dizziness can be caused by the chemical residue trapped in the threads.” Despite providing hyperlinks to sources for other arguments made throughout the article, this claim does not include any reference or link to its source, nor its source’s veracity.

In the absence of any comprehensive, independent and peer-reviewed scientific research into the health benefits of organic textiles, the publications reporting these health claims are usually popular news sites, blogs and self-interest journals and magazines. Interestingly, such claims are increasingly being treated with a degree of skepticism by other pro-organic organisations and websites. This includes websites such as Organic Facts, which follows up anecdotes of health benefits of organic cotton with the disclaimer that “These benefits of organic cotton are perceived beliefs, and do not have strong scientific proof to back them up.”

Despite the breadth of all of these arguments, there is a notable absence of scientific consensus or rigorous peer-reviewed research demonstrating that the farming or manufacturing processes behind organic fabrics are better for the environment, the farming economy or the consumer. As with organic foods, the language surrounding organic fabrics is full of positive marketing jargon which, when closely examined, does not have any substantial meaning.

Nonetheless, sales figures of organic and organic-blend textiles continue to climb. The 2010 Global Market Report on Sustainable Textiles measured the worth of the organic cotton and home textile market at $5.16 billion and a market growth of 20 per cent in just one year, and predicted that this would continue to increase to $7.4 billion by 2012. While the environmental and health benefits are still unverified, organic clothing does have measurable economic benefits, at least for the companies and stakeholders involved in the organic textile markets.

About the author: Sarah Malcher is a former solicitor who currently works in legal publishing and has a strong interest in skepticism and consumer advocacy.
Birth of a Notion

Sweet chariots may be a popular refrain in gospel meetings, but it also has resonance among some Skeptics. Particularly among those of high station. A year ago, current Australian Skeptics Inc president Eran Segev admitted that it was the works of notorious “aliens did it all” theorist Erich von Daniken that turned him down the skeptical path. Now another (former) president and executive officer opens up to the same scenario. Von Daniken – influential? Definitely. Preposterous? Absolutely. Coincidence? We think not.

BARRY WILLIAMS - SKEPTIC

How did I become a skeptic? Well this might sound a bit strange coming from someone who later achieved some notoriety as an ‘official’ Skeptic, but the fact is it was all down to Erich von Daniken.

But let us step back a bit. I was raised in rural dairy farming southeastern Queensland in the 1940s, an area, if current mythology is to be believed, rife with religious fundamentalism. My own experience is quite counter to this mythology. My parents were nominally Anglican but they were not even Xmas- and-Easter Christians, more wedding and funeral church attendees only. In their lack of religiosity they were not at all unusual in our district where people who were overtly religious were widely viewed as being a bit odd.

For reasons that they never really explained to me, they had me baptised as a Presbyterian, though I had never, until I joined the RAAF as an apprentice at 16, been inside a Presbyterian church - and only a couple of times since. I briefly attended Sunday School when I was quite young, though when my much older cousin who used to accompany me to this service ceased to attend, then so too did I.

When I joined the RAAF we were required, for our first two years, to attend Church Parade each Sunday. There was an out for unbelievers, but that brought the task of working in the cookhouse cleaning the big utensils. When some biblical figure (Paul?) said that it is better to marry than to burn, he might have been thinking of those cookhouse duties. Needless to say, when my third year arrived I had discovered that I was an atheist and ceased attending church services forthwith, a practice I have now followed religiously for much more than half a century.

I think I can safely say that due to a lack of early indoctrination into implausible ideas my ‘ground state’ was probably mildly skeptical. However, my experience has left me indifferent to religion rather than with the antipathy that seems to motivate many other atheists.

Which brings me back to Eric von Daniken. As a youth I developed an interest in ancient history and in particular that of Egypt, initially through the popular books by English author Leonard Cottrell and later via more scholarly works.

My curiosity was roused when a new book was published amid much publicity, promising to reveal all manner of secrets about our past and of our involvement with alien civilisations. The title was “Chariots of the Gods?”, written by a Swiss bloke named Erich von Daniken.

Intrigued, I bought a copy and proceeded to improve my education about the ancient world. From the outset it seemed to me that the author was prone to making hard-and-fast claims based on nebulous evidence, but it wasn’t until I read a chapter about a subject I knew something about, Egyptian pyramids, that I realised just how silly the book was. I then supposed that Daniken’s version of other ‘mysteries’ was probably as fatuous as his Egyptian maunderings.

That left me, in the early 1970s, as a skeptic but tempted to think I was the only one around - certainly there were plenty among my acquaintances who thought von Daniken was on to something.

It wasn’t until almost a decade later, in 1980/1, that I discovered that there were lots of other skeptics about the place. It happened when I saw Dick Smith on TV questioning a lurid news item about a UFO sighting off New Zealand. Dick called for people interested in forming a Skeptics organisation to contact him, which I duly did. Shortly thereafter Dick wrote back and put me in touch with the nascent Australian Skeptics recently formed in Melbourne.

Relieved, I contacted Australian Skeptics, was shortly appointed as the NSW contact and within a year I had set up a NSW branch. The rest, as the poets say, is history.

Barry Williams assesses Erich von Daniken with a skeptical lilt to his demeanor. It’s not all thumbs up.
The cycle of life

Seances, sites, sticks and sex.
And so it goes, the almost inevitable realisation that all knowledge is connected and connectable.

WHAT THE DICKENS
One of Collins’ closest friends and literary collaborator was Charles Dickens (1812–1870, pictured right). Dickens himself was known for a long-term relationship with actress Ellen Ternan, who was 18 when he met her. He never divorced his wife, Catherine, though they did separate, and Ternan remained “the invisible woman” for the rest of his life. At the same time, Dickens expressed an academic interest in the paranormal, and despite various paranormalities in his books, such as spontaneous human combustion and ghosts, he preferred to ascribe uncanny phenomena to psychological or physiological causes. His interest extended to joining the Ghost Club, and it was his death which led to its temporary disbanding.

LOVE AND MARRIAGE
The free love movement, a broad reform tradition starting in the 1820s, held that marriage is slavery, and advocated the removal of all state restrictions on sexual activity such as homosexuality, prostitution, and adultery, culminating in the birth control movement of the early 20th century. A noted ‘member’ of the movement was writer Wilkie Collins (1824-1889), author of The Woman in White (1859) and The Moonstone (1868) and contributor to Household Words. Collins had long-term relationships with two women at the same time, neither of whom he married, and with one of whom he had several children.

GHOSTS AND GENTS
The Ghost Club is a paranormal investigation and research organisation founded in London in 1862. Its prime interest is paranormal phenomena such as ghosts and hauntings, largely from a believer point of view. It is said to be the oldest such organisation in the world, though the more scientifically-focused Society for Psychical Research was set up at about the same time. The Club dissolved in the 1870s following the death of a key member, but was revived in 1882. Its members have included Charles Babbage, Arthur Conan Doyle, Arthur Koestler, Donald Campbell, Sir Julian Huxley, WB Yeats, Dennis Wheatley, Peter Cushing and Frederick Bond.

Source: Wikipedia, except where noted
Frederick Bligh Bond (1864–1945) was an English architect, illustrator, archaeologist and psychical researcher. He joined the Ghost Club in 1925, as well as the Freemasons in 1889, the Theosophical Society in 1895, the Society for Psychical Research in 1902, and the Societas Rosicruciana in Anglia in 1909. In 1908 the Church of England appointed him as director of excavations at Glastonbury Abbey. At the site, he rediscovered the nature and dimensions of a number of buildings that had occupied the site. He claimed to use spirit guides and “psychic archaeology” to find the ruins. Because of his obsession with spiritualism, he was dismissed from his Glastonbury position in 1921.

Glastonbury Abbey has links with King Arthur, Jesus, the Holy Grail and thorns.

Glastonbury has links with legends concerning Joseph of Arimathea and the Holy Grail (not to mention King Arthur). According to the 13th century French poet Robert de Boron, Joseph captured Jesus’ blood in a cup (the Grail) which was brought to Britain. On arriving at Glastonbury by boat over the flooded Somerset Levels, Joseph stuck his staff into the ground and it flowered miraculously into the Glastonbury Thorn. This is said to explain a hybrid Crataegus monogyna (hawthorn) tree that only grows within a few miles of Glastonbury, and which flowers twice annually, once in spring and again around Christmas time (depending on the weather), though at various times it has been vandalised.

The legend also says that as a child, Jesus had visited Glastonbury along with Joseph. The poet, painter, and printmaker William Blake (1757-1827, pictured above) mentioned the legend in a poem that became the popular hymn, Jerusalem: “And did those feet in ancient time/Walk upon England’s mountains green/And was the holy Lamb of God/On England’s pleasant pastures seen!” Blake had strong links to alternative Christian groups, including the Swedenborgian/New Church. Especially in his younger years, he promoted open sexual relationships and an antipathy to marriage (which he once described as “the Marriage Hearse”). He has been cited as a forerunner of the ‘free love’ movement of the later 19th century.
The good news is that the lost civilisation of Atlantis has definitively been found. The bad news is that it has also been definitively found over the centuries in one place after another by crackpots and mostly amateur archaeologists. Whether all their efforts are worth it or not, the Atlantologists have a great deal of enthusiasm and have kept alive a legend (or is it?) that everyone knows about.

Tracking the legend and the history of the quest to find the lost city is the aim of *Meet Me in Atlantis: My Obsessive Quest to Find the Sunken City* by Mark Adams, who has written before on the definitively found Machu Picchu. Adams is a perfect guide, with good-natured skepticism and a fine sense of humour.

“Most of the university experts I’d approached about Atlantis have equated the futility of searching for it with hunting down the specific pot of gold that a certain leprechaun had left at the end of a particular rainbow.”

But those nay-saying boffins aren’t much fun; Adams instead goes all over the world to visit those on the Atlantis quest, generally smart people who have turned up various hypotheses that hinged on “tsunamis and other improbable agents: volcanic explosions, mistranslated hieroglyphics, the ten biblical plagues, asteroid impacts, Bronze Age transatlantic cocaine trafficking, and the Pythagorean theorem.”

There’s some real history in Adams’s book, and a sense of wonder (sometimes at the oddity of our fellow humans), and a good deal of fun.

Everything we know about Atlantis comes from one source, and since he is a cornerstone of Western thought, wondering about Atlantis is never going to cease. It was Plato who described Atlantis in his dialogues *Timaeus* and *Critias*, wherein the characters of the title and others chat with Socrates about diverse subjects. Socrates includes the stories of an ancient power that lost a huge battle to Athens 9000 years before his retelling of the story.

Plato included specific details about the city. It was the richest city ever, abounding in crops, lush plants, and elephants. It was larger than Libya and Asia, it was near to the Pillars of Heracles, and Poseidon himself had laid it out in perfect concentric circles of land and water. The humans of Atlantis obliged by digging a canal to the sea ten times bigger than the Panama Canal.

Plato got the story as passed down from many oral historians, supposedly coming from an Egyptian priest who heard it centuries before. The discussants in the dialogues treat Atlantis as a real place. It is significant, however, that most modern philosophers, the experts on Plato and his ideas, dismiss Atlantis as a fable, an invention that Plato created to illustrate political concepts. One archeologist Adams interviewed was similarly dismissive, pointing out that no one is hunting for the true location of the famous Cave of the Ideas, shadows within which Plato used as a fable to demonstrate our shadowy comprehension of reality.

The sort of flood connected with Atlantis has been the stuff of legend since people started telling stories. Adams makes the analogy of the quest for Atlantis with that for Noah’s ark, which has “almost certainly consumed more money and hours than the search for Atlantis”. At least the searchers for the ark have a specified locale upon which to do their digging, while the Atlantologists have speculated that their city is now somewhere beneath the Atlantic, or in Spain, Morocco, Crete, Santorini, Malta, or Antarctica. There are thus plenty of places to be investigated, all of which are sincerely believed in while none of which are completely consistent with Plato’s descriptions in the primary source. Some of the Atlantologists take inspiration from Heinrich Schliemann, a German businessman but more importantly a self-taught historian, who in the 1870s showed that Troy was an archaeologically researchable site.

One of the self-taught was a former congressman from Minnesota, Ignatius Donnelly, who set out to prove that Atlantis had been a real locale, and brought forth *Atlantis: The Antediluvian World* in 1883. Donnelly cherry-picked items from Plato and any other historical source he found helpful, and demonstrated that the citizens of Atlantis had invented the pyramids, mummification and circumcision. Donnelly included some
of the inventions of his own time, giving the Atlantans credit for them. Maybe they even had gunpowder.

But Atlantis, according to his version of its history, sank into the middle of the Atlantic in a day and a night, leaving just the Azore Islands as remnants. Donnelly said the newly understood Gulf Stream continued to flow clockwise around where Atlantis had been. Refugees from the flood traveled all over the world, which is why, Donnelly explained, there are so many cultures that have flood myths. Donnelly's work was the inspiration for many of the ideas of the current Atlantologists.

Of course, they aren't hunting in the middle of the Atlantic. Adams goes to plenty of their areas of research, and when it comes to someplace like Akrotiri on the island of Santorini in the Aegean (which has a very circular harbour and is thus a candidate for Atlantis's remains) he is able to describe closely the serious archeology going on. There are also overlaps with academically excavated regions in Egypt, Spain, and Crete.

The archeologists doing the digging, however, don't think much of the Atlantologists. And the Atlantologists don't think much of each other, unless between them there is agreement on the locale of the ancient city. Adams hears boosters for Malta, Crete, the foothills of the Atlas Mountains in Morocco, the lost Greek city of Tartessos, and a site on the Spanish coast near Cadiz, and proponents explain about how that particular site is more feasible than all the others, and what is wrong with all the others.

After all this work, Adams has to conclude that all the candidates seem more or less plausible, and all reflect the enthusiasm and bias of their proponents. He even comes up with his own idea, and is advised by an expert on the subject, “Mark, you should be perfectly happy to come up with your own conclusions, whether they agree with mine or not. There’s no one dealing with this subject who isn’t speculating.”

The speculation will never end, barring the discovery of an inundated city at the centre of concentric rings and inscriptions that prove it to be the Utopia that people have forever been seeking. It is fascinating to see how influential the legend has become; Adams easily shows its connections to Comte de Buffon, Jacques Cousteau, Heinrich Himmler, William Gladstone, James Cameron, and plenty of others who have found that the idea held some sort of meaning.

One of the guides who showed Adams around a site had a fit reflection for our times, and it requires no arguing about history or geography: “I think that’s the real story of Atlantis. No matter how big and powerful you get, you can disappear just like that.”

- Reviewed by Rob Hardy
An Eye to the Sky

Galileo’s Telescope: A European Story
By Massimo Bucciantini, Michele Camerota, and Franco Giudice
Harvard University Press, US$20.14

As I write this, we have in the past few days received pictures of Pluto from the flyby of the New Horizons satellite. They are wonderful, but by now such detailed pictures of distant worlds are fairly commonplace. We used to explore space merely with earth-bound telescopes, and there was a time when even the telescope was a new invention.

Telescopes were a sensation in 17th century Europe; think how astonishing it must have been to have had a device that made distant objects look close! Such gadgets had extraordinary military potential, and all the kings wanted them. Galileo, however, took the telescope to the heavens, and changed history.

How he did so is the story of Galileo’s Telescope: A European Story by Massimo Bucciantini, Michele Camerota and Franco Giudice (translated by Catherine Bolton). The authors are all professors of the history of science, and have here traced the invention of the telescope and the roundabout ways that Galileo got his observations published, promoted, and accepted by many thinkers (although there was that little problem of their contradicting the Bible). The authors say they are telling a crime story, of how Galileo robbed us of our beliefs that the Earth was central to everything; that’s a fine way to describe how dramatic were the changes related here.

The universe with the Earth at the centre is one of those common sense things that shows how wrong common sense can be; you can easily see the Sun and Moon going around us, and you can’t feel any motion of a spinning Earth. It is the view Aristotle described, and it was further explained by the Greek astronomer Ptolemy, and the Catholic theologians took it over. Copernicus showed in 1543 that a model with the Sun at the centre presented a simpler mathematical picture, and he was right, but he was making a mathematical theory. What Galileo did was to take the new invention, the telescope, make its magnification stronger and more reliable, and then turn it to the heavens to show how the heliocentric model made physical, not just mathematical, sense.

We take his model for granted now, and one of the most interesting parts about this book is how the telescope’s findings not only changed our ideas of how the heavens went round and how we were not at the centre of everything, but also that we were part of a larger universe. The heavens were supposed to be celestial and perfect; it turns out that the heavenly regions showed themselves to be the same stuff that we know down here.

The idea of using a combination of lenses to make things seem closer had been around for a while, but the glass wasn’t fully transparent and the grinding of lenses was crude. In 1608, Hans Lipperhey in the Netherlands made a telescope of two lenses inside a tube, and it could magnify about three times. It is quite possible that Paolo Sarpi, a Venetian scientist and theologian, introduced the telescope to Galileo. The two men collaborated, but had a falling out later, and Galileo perhaps never gave Sarpi all the credit he deserved as they improved the device together. Galileo did order fine lenses from Venetian glassmakers (one of his shopping lists is reproduced in the book), and he further ground and polished and mounted them, to make the most powerful telescope anyone had seen with a magnification of nine times.

What did Galileo get to see? First, he saw the surface of our Moon, and realised that it had mountains and valleys, something like our own planet, and it was not the sort of perfect orb the heavens were supposed to contain. This was not too much of a challenge to religious doctrines; the Moon with all its monthly changes had been sort of a symbol for inconstancy. Indeed, the same pope who was later to warn Galileo against holding the idea of a heliocentric universe commissioned a fresco for the Pauline Chapel showing the Virgin standing on a rugged lunar profile just as Galileo had depicted.

Other discoveries, however, were less easily accepted by the church. The Sun was no more perfect than the Moon, but changeable in that it had spots that played across its surface. The planets like Venus and Jupiter could be seen to be illuminated by the Sun, showing phases just as the Moon showed; they were all just spheres
in orbit. When he looked at Jupiter, Galileo saw three (later confirmed to be four) moons. He saw them, and he must have grabbed for the first piece of paper at hand, an envelope from a letter he had just received, to mark the three small moons around the big planet; the envelope is also in the book. The discovery of Jupiter's moons was to be a special blow against the universe as Earth-centred; those moons were going around with another planet at their centre, and there was no reason to think anymore that everything went around the Earth.

Galileo was quick to publish his discoveries. Just two years after Lipperhey produced his lens tube, Galileo published *Sidereus Nuncius* and it caused a sensation. It was popular all over Europe. It might have been addressed to the philosophers and mathematicians, but it had a far more universal appeal. People didn't even have to read Latin, or even read at all, to appreciate it. It was not the first illustrated book, but its words were there to discuss the images, and the images were such as had not previously been seen. There were engravings of Galileo's watercolors of the Moon, a view of how many more stars were held in the Pleiades than anyone had ever suspected, and a chronological view of the movements of the moons around Jupiter. The authors say that only *Origin of the Species* 250 years later would achieve the acclaim of Galileo's short, illustrated book.

The famous battle of the church against Galileo was begun, and the authors point out that not just the church, but the professional astrologers, too, were upset at the physical depiction of celestial goings-on. The Sun at the centre was all well and good if it were a mere mathematical model, but Galileo provided observational evidence that the view of Copernicus was correct. Not only that, but the pictures showed that the heavens were not composed of ideal bodies, but were imperfect and corruptible, and there were worlds out there beyond the one created by God specifically for us. Those worlds were not wandering stars, but globes that showed phases just like our Moon did, and just like Earth would do if seen from one of those other planets. There was enormous worry about how religious, political, and social orders would be overturned if ever Galileo's discoveries became the accepted truth. The worry did not just come from the church fathers. In his 1611 poem “An Anatomy of the World,” John Donne reflected on the apprehensions engendered by these discoveries which had brought “all in doubt” and threatened to overturn the moral, political and social order:

’Tis all in pieces, all coherence gone,
All just supply, and all relation;
Prince, subject, father, son, are things forgot...

The authors show how Galileo not only made the discoveries, and published them, but set out on a traveling campaign to defend them. Some scholars, even the Christian ones, were excited by the new view of the cosmos. Others, like Bonifacio Vannozzi of Pistoia, a papal court secretary, wrote “To say that the Moon is Earthlike, with valleys and hills, is as if to say that there are flocks that graze there and cowherds who cultivate it. We must stand by the Church, which is the enemy of anything new, according to the teachings of St Paul.” The findings of the telescope were so repulsive that some said they were merely optical illusions or hallucinations.

The most famous part of Galileo’s story, of how he was convicted of heresy in 1633 and was kept under house arrest until he died nine years later, is not covered here. Instead, here is the clear but complicated narrative of what Galileo had done with his singular device. “His discoveries seemed endless,” the authors write. “The havoc he was wreaking could not have been more devastating.”

- Reviewed by Rob Hardy
I see the light!

Near-Death Experiences: Heavenly Insight or Human Illusion?
By Birk Engmann

According to a study from 2006, four per cent of all Germans report they have had near-death experiences (NDEs) during their lives. Studies from the USA show similar or even higher frequencies. This means about three and a half million Germans and at least twelve million Americans have had some sort of experience that cuts across the two states of mortality. A sizable number, if you extrapolate that proportion on a global scale, but not that far off the number of people in America who believe they have been abducted by aliens.

Both ‘phenomena’ raise much interest, certainly with the public and the popular media. Perhaps not quite as much as Birk Engmann feels – “No aspects of science and research has been discussed more emotionally than the topic of near-death experiences” – but they are certainly areas that have implications for our place and relationship with the broader universe, whether that be physical or spiritual.

Engmann is a neurologist, psychiatrist and artist, so his own background positions him well for whatever aspect of NDEs he would like to consider, which is exactly what he does in this fairly slim volume (less than 150 pages).

Beginning with history, his references to NDEs go as far back as an anecdote in Plato’s Republic concerning Ex, the son of Armenios, who died on a battlefield. Only he hadn’t died, he was just in some sort of coma, and woke after 12 days, recalling “When his soul went forth from his body, it journeyed along with many others until they arrived at a marvellous place, where there were two openings in the earth next to one another, and opposite again two others above them in the heaven.” Upward for the goodies, downward for the baddies.

Ex might be a metaphor – the name is suspicious – but his experience is a classic depiction of one form of NDE.

A similar depiction is found in a painting (pictured above) by Hieronymus Bosch called “Ascent of the Blessed”. Here there are people being taken by angels up to a large tunnel/ funnel, with apparent others at the far end to greet them, silhouetted against a bright light. Engmann is intrigued by this work, stating that the painting is “the one most often reproduced in publications dealing with the topic of near-death experience. It has already gained an iconic significance: anyone who sees the painting already knows what the publication is about.”

And thereby hangs the tale. The imagery of NDEs, and in particular the light at the end of the tunnel, is now widely known, much as is the now clichéd image of an alien, and must surely colour subsequent reports.

Engmann does point out that the painting has other interpretations, and should be seen in its context of one among several panels.

But it also leads into another issue, and that is,
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exactly what is an NDE? Apart from the tunnel, the other widely reported experience associated with NDEs is that of floating above one’s own body – the out-of-body experience (OBE). But OBEs are not exclusively NDEs, and sometimes occur in association with other situations, such as drug hallucinations. And there are still other sensations associated with NDEs, and Engmann spends some time discussing the problems and contradictions, including the “non-specificity of experiences”. Some NDEs might only involve noises (including water), voices, zigzag patterns or other people (friends, family).

Add to the mix the relatively low number of people who are successfully resuscitated after clinical death – less than two per cent – and the fact that experiences are largely retold some time after the occurrence, and as Engmann points out, researching the topic starts off behind the eight ball.

Half of the book, then, draws on his medical background for explanations of what NDEs might be. It’s not giving away too much to say that he

tends to the neuro-psychological explanation. He lists various parts of the brains that may be associated with different types of NDEs.

He is critical of much current explanation of NDEs, especially by what he terms a ‘modern Gnostic movement’: “Approximate scientific knowledge and the mingling of various scientific assumptions with concepts taken from different religions leads to pseudo-scientific explanations. When science comes to a point where explanation fails, this is then taken for proof of the existence of the supernatural.” But he admits that science itself is still coming to terms with what an NDE is, hampered as it is by the limitations of cases to study.

For those who don’t mind a bit of neurological terminology, then this book is recommended. And it is only short, so it won’t take too long to read – about the length of the average trip to the tunnel and back.

- Reviewed by Tim Mendham

Raiders of the Lost Logic

An Illustrated Book of Bad Arguments
By Ali Almossawi
Scribe, AU$24.99

What to make of this book? Here are 19 examples of faulty logic, accompanied by illustrations exemplifying each one. That’s two pages per logical fallacy, so it’s not a particularly big book.

But it’s not so much the length that worries this reviewer. The biggest issue is who the book is intended for. The illustrations comprise anthropomorphised animals, with extraordinarily large eyes. The cover illustration is a good example, and probably the best one in the book. This implies that the book is for kids – they’re just too cute for adults. But the text can be challenging, and probably not suitable for anyone below senior high school level.

For instance, the slippery slope:

“A slippery slope argument attempts to discredit a proposition by arguing that its acceptance will undoubtedly lead to a sequence of events, one or more of which are undesirable. (Footnote: The slippery slope fallacy described here is of a causal type.)” This is accompanied by an illustration of a father cat telling a kitten: “If you let a bully come in your front yard, he will be on your porch the next day, and the day after that he will eat your babies.”

The illustration in this case is probably clearer than the text, though others can stretch the ability of the reader to see the link between text and pic.

So, is it a bad book? No; the intentions are certainly worthy, and some of the examples will appeal to skeptics and non-religious people. Just don’t expect an in-depth discussion of the finer points of logical fallacy. About 230 words per entry might be enough for some people, and not enough for others. There are other publications that discuss such fallacies (including the “Logical Place” column in this magazine), so maybe look at those as well. And they don’t have those scary big eyes.

- Reviewed by Tim Mendham
The birth of the bad

Born Bad: Original Sin and the Making of the Western World
By James Boyce
Counterpoint, AU$34.99

The possibility that people are born with original sin which they caught from Adam and Eve does not interest me much. I think of that creation story as a legend. Although many of my fellow US citizens feel it to be literally true, it’s pretty easy for me simply to subscribe to the views of science that the world has existed not for thousands but for millions of years, and that there evolved a human species, not two individuals created in a perfect garden. That so many people believe contrary to my own beliefs is, however, of some interest. It was not until I read Born Bad: Original Sin and the Making of the Western World by James Boyce that I realised that, legend or not, the original sin story has had pervasive effects on society, effects that continue even into our own scientific age. This is a concise though wide-ranging story, and Boyce has brightly covered the origins of the doctrine and its surprising influence on all subsequent ages, including our own.

The concept of original sin is not in the Bible. In neither of the creation stories in Genesis is the word “sin” used. The idea of original sin came about in the centuries after Jesus’s time, as Christians wondered what it was from which everyone needed to be saved. Paul’s teachings were interpreted as advising an extreme distrust of sex, which led to priestly celibacy and to the idea that the knowledge that Adam and Eve got from eating the fruit was carnal knowledge. More importantly, original sin was linked to infant baptism.

At a time when infant mortality was high, it was not surprising that parents would rush to get the baby baptised, even though adult baptism was the type described in the Bible. Such a baptism washed away sin, but an infant could not really have done anything bad, so it must have been washing away the original sin. The Catholic Church was able eventually to assert a monopoly over salvation, and over baptism in particular, but it was only in the chaos after the sack of Rome in 410 CE that original sin became a doctrine of the church.

It was Saint Augustine who began to teach about the fall of Adam and Eve and the subsequent transmission of sin upon all their offspring. It is remarkable that this influential doctrine may be based on a mistranslation. Augustine was using a Latin Vulgate version, which said that death spread because of Adam “in whom all sinned,” whereas Paul actually wrote in the original Greek text that death spread “because all have sinned.” How this sin was transmitted to all of Adam’s successors was a confusion that would never be resolved, but Augustine preached that it was injected at coitus within the semen. This had the advantage of tying it to the bugbear of sex, and of emphasising how different and free of seminal contamination Jesus was, being born by “infused immaculate seed” into Mary’s womb.

Augustine didn’t have a monopoly of teaching about the matter. Pelagius was a holy man from Celtic Britain who had a far happier opinion of human nature. He thought babies were innocent at birth, and might later make a decision to sin because God had bestowed upon them the free will to do so, but the sin wasn’t inherent. Pelagius and the Celtic tradition did not see that babies were sinners who had to get forgiveness or early baptism.

We don’t have many of Pelagius’s original writings, because they were burned. Augustine’s view was eventually triumphant, and most of what we know of Pelagian thought comes from Augustine’s writings themselves, as he liked to make point-by-point rebuttals. Augustine and those who agreed with him were able to lobby the church to accept the original sin views, and also to get Pelagius expelled from Rome, and declared a heretic, in 418 CE.

The impetus to getting infants baptised early was one indirect reason that original sin became a foundational teaching, and reflections on infant baptism were to be included in thinking about the doctrine for centuries. Augustine suggested that God, being good, would ensure that babies who died early would gain salvation, but he wrote that he could give parents no guarantee of this. After all, he argued, innate human wickedness as inserted by original sin was so horrid that it was only logical that an infant who had not gained absolution through baptism would be damned.

It isn’t just us moderns who saw this as unfair or stupid; no just deity, I think, would ever torture anyone, much less a newborn that had simply missed the bureaucratic requirement of water on
the forehead. The Catholic Church tried to make this atrocious damnation more palatable by the idea of limbo, a bland place where unbaptised infants could at least avoid being tortured forever but wouldn't get the joys of heaven. Limbo was officially withdrawn in 1992.

Catholic theologians don't make much now of the damnation of infants; although they are unable to cite chapter and verse that would keep infants out of hell, they think that such infants might trust to the mercy of God. Luther, Calvin and others taught that people were inherently sinful and liable to just hellfire. Calvin went further to say that it was a treacherous doctrine to think that people could do any act that would save themselves. He wrote that “the impurity of the parents is so transmitted to the children, that all, without a single exception, are polluted as soon as they exist.” Many Protestants liked to emphasise how nasty babies were. They crawled like animals, for instance; swaddling an infant helped keep observers from being reminded of this bestiality. Cotton Mather, a famous New England preacher, wrote that children “go astray as soon as they are born. They no sooner step than they stray, they no sooner lisp than they ly.”

Boyce makes a compelling case that with all the centuries of thinking that original sin was factual, it has cast its shadow through the Enlightenment and into our own times. The second half of his book is devoted to many famous thinkers like Bacon, Hobbes, Adam Smith, Hume, and Kant. Even the ones who were thinking only of secular subjects, or were outright atheists, Boyce shows, saw humanity at least in ways analogous to the story of the fall from Eden. Humans were broken beings, vicious, selfish, and brutal, and whatever reason they possessed was at the whim of such more basic traits.

This shows up even in the American Constitution, which founded a government that was to manage the inherent wrongness that people might get up to. Freud, too, argued that sexuality and aggressiveness were in conflict with morality and conscious thought; of course, he thought redemption would come from an honest examination and acknowledgement of one's inner life, and in that he was not so different from Augustine or Luther. Even Richard Dawkins is here; the selfish gene is analogous to original sin, and culture (and memes) have potential for breaking us out to altruism.

Boyce explains that popular preachers like Billy Graham ascribed evil to Satan more than to any inherent nature, and this has been one reason the concept of original sin is not now so influential. It is also irrelevant to the Pentecostal feeling of ecstatic salvation; if you dwell on the fate of inherent sinners, you can't have much of an upbeat church. Increasing secularism, too, has eroded the doctrine. But Boyce also admits that, although evil might be pervasive in human history, the documentary sources for history are going to focus on big actions from the rich and powerful. “There are relatively few records of the ‘small’ acts of kindness, compassion and self-sacrifice which, almost by definition, seek no recognition but keep children, communities and cultures alive.” Humans commit heinous acts, to be sure, and always have. But look at those around you, your family, your friends, those with whom you work. Is it actually realistic to say that they are, every one, born bad? Let us continue to let go of the doctrine of original sin.

- Reviewed by Rob Hardy
Dissenting about dissonance

In which our correspondent respectfully disagrees with Bob Carroll about the value of the theory of cognitive dissonance

In the last issue of the Skeptic, a long article by RT (Bob) Carroll (June 2015, pp16-21) was published, questioning and criticising the theory of cognitive dissonance. Bob Carroll is one of the greats in skepticism. A retired philosopher, he has published books on education and skepticism (see Carroll 2015b). Probably his greatest contribution is the online Skeptics Dictionary. If you don’t know about this, let me urge you to visit the website (skepdic.com).

I am looking fairly closely at the theory of cognitive dissonance. I think it may throw light on the various denial movements which are plaguing the modern world. Therefore, I read Bob’s article with interest, but found it very unclear. It rambles about, asking rhetorical questions and introducing undefined terms. I will answer what seem to be to be Bob’s main points.

COGNITIVE DISSONANCE
What is cognitive dissonance? As Bob recounts, way back in the 1950s psychologist Leon Festinger and some colleagues studied a ‘doomsday’ cult which prophesied that the world was going to end, but that the faithful would be saved by aliens. It didn’t happen, of course. To the astonishment of Festinger, the cultists began enthusiastically trying to win converts even though the prophecy had been conclusively refuted (Festinger, Riecken & Schachter 1956). Festinger eventually produced an important book A Theory of Cognitive Dissonance (Festinger 1957) which sought to explain this and other strange behaviour.

The essence of the theory is that holding conflicting beliefs (‘dissonance’) causes us discomfort and the discomfort serves as a motivator to reduce the dissonance. Dissonance, and the distress it causes, can vary in magnitude and this will influence whether we try to reduce it, and how. There are various ways of reducing dissonance, and Festinger made some predictions about when each one will be used (eg Festinger 1957: 18-24).

Here’s a simple example. Imagine that I believe the Bible is literally true, and I also believe that science is the best way to understand the universe. This causes me dissonance, as some pronouncements in the Bible clearly contradict scientific findings. Festinger predicts that we normally select the belief to which we are committed most strongly, so I choose to believe the Bible. But that causes dissonance with my beliefs about science. So I might add extra beliefs. For example, I can argue that proper science actually supports the Bible – I become a creation scientist! Or – and Festinger explicitly predicted this – I may seek to convert other people to my Biblical beliefs.

After all, if other people accept my arguments, that appears a strong reason for believing the beliefs are right. This explains why so many creation scientists are vigorous evangelists, and also the behaviour of Festinger’s doomsday cultists.

Naturally, psychologists became interested in the theory’s predictions and hundreds upon hundreds of experiments have been done. In general the theory has been supported, though it has been modified somewhat (Cooper 2007).

Perhaps the classic cognitive dissonance experiment is this one. People are asked to write an essay, or make a speech, on some topic with which they strongly disagree. They are offered a small reward if they will do this. Other people receive the same request but are offered a much larger reward. Now cognitive dissonance theory (Festinger & Carlsmith 1959) predicts that of the people who agree to do this, those receiving the small reward will change their opinions substantially. Those receiving the larger reward will change their opinions much less, if at all. It’s an astonishing finding, but the theory predicts it, and it has been verified repeatedly in both lab and real-world settings.

I recently checked the influence of Festinger’s theory, using the Web of Knowledge. The total number of references to Festinger’s book is something like ten thousand. And more than two thousand papers have been written on cognitive dissonance. On the face of it, that suggests a powerful, productive and influential theory.

BOB’S CRITICISMS AND WHY I DISAGREE
Let’s have a look at Bob’s criticisms. First (Carroll 2015a:21), he picks up on the early ‘reward’ study by Festinger and Carlsmith, and essentially makes two comments. First, only a small number of people were involved (about 20 per group) and second that for Stanford students the difference between the large ($20) and small ($1) rewards might not have been large enough. The first point is answered by the fact that many studies of this type have now been done, verifying the original finding. The second point – that the rewards are
not different enough — is simply speculation. Even today, with the value of money much diminished, I would much rather receive $20 than $1, and if Bob has real evidence about this issue he should produce it.

I was rather shocked by Bob’s further comments (Carroll 2015a: 21) that even if the original study had been vastly larger he still wouldn’t believe it because “it’s just an experiment”. But the results have now been replicated in real-world situations, and they still work (eg Cooper 2007: 18-23).

Now let’s deal with Bob’s more general criticisms. First, he thinks that the theory of cognitive dissonance violates Occam’s Razor. Why, he wonders, would we use dissonance when we could use “the more familiar concepts of changing one’s mind . . . rationalisation, self-deception, irrational faith, confirmation bias, overestimation of one’s intelligence and abilities and the like?” (Carroll 2015a: 19)

Occam’s Razor is stated in many forms, but the key idea is that you don’t unnecessarily multiply explanatory entities. Cognitive dissonance is one concept. Bob, apparently, prefers six, seven or more concepts (count them in the quote above) and somehow thinks this is Occam’s razor in action. To me, Occam’s Razor indicates that a single concept forms a preferable theory to multiple concepts. I have no idea why Bob thinks the reverse.

Bob’s next objection is that the research on the topic has “a lot of confirmation bias” (Carroll 2015a: 20) on the part of researchers. I wonder how many relevant papers Bob has read to come to that conclusion. In any case, it isn’t true. There were savage attacks on the whole theory early on (eg Chapanis & Chapanis 1964; Elms and Janis 1965) and other researchers put forward opposing theories (eg Rosenberg 1965; Bem 1967 and 1972). More recently, Cooper (2007) has modified the basis of the theory to accommodate new findings. Bob produces no evidence for his claim, and there is strong evidence to the contrary.

Bob also makes great play with the argument that some people are not bothered by dissonance (eg Carroll 2015a: 19). This might be a good point, except that Festinger himself explicitly dealt with it. He postulated that where beliefs are less important to a person, dissonance will be less (Festinger 1957: 18). In addition, recent studies indicate that psychopaths show much less dissonance in experiments (Murray, Wood & Lilienfeld 2012). Finally, other studies have shown that in some Asian cultures, where interpersonal harmony is stressed, dissonance does not arise in the same circumstances (Heine and Lehman 1997). So we know a fair bit about when dissonance is a motivator and when it isn’t.

CONCLUSIONS

I really don’t think Bob’s paper does justice to this topic or to himself. As far as I can tell, cognitive dissonance is a powerful explanatory theory. It has been tested hundreds of times, has been enriched and modified, and still yields useful results. It might be wrong, but it will need clear, evidence-based arguments to overthrow it.

Martin Bridgstock,
Griffith University

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War on Drugs

Alex Wodak's article “Use and Abuse” (The Skeptic, June 2015, p44) is excellent. The 100 year old American-led “war on drugs” is now completely out of control and bereft of all common sense. Yes, it would be nice if we all kept fit, didn’t lie and cheat and were kind to animals, but it’s never going to happen. How come it’s perfectly fine to risk your health mountain-climbing, hang-gliding, swimming with sharks, boxing, smoking or living off junk-food, but a heinous crime to do so using chemicals? Like it or not, human beings have liked getting high since the dawn of civilisation, whether it be via alcohol, kava, peyote, marijuana, cigarettes, betel nuts, magic mushrooms, coca leaves or opium. (1)

If people want to take drugs then is it really the concern of anyone else? Yes, it’s a stupid thing to do, but as long as they’re not harming others, so what? All the “war on drugs” has given us is a massive increase in violent crime, more AIDS and hepatitis, increased prisoner numbers, an unacceptable loss of civil liberties, environmental destruction (2), corruption of our police and judiciary, wasted taxpayer’s money, criminalised a lot of silly kids and financed terrorism. There are, of course, beneficiaries of prohibition - we all know the results of that. Prohibit something and it shoots up in price, drops in quality and attracts criminals. An unintended victim is science itself - the deliberate distortion of facts or, to put it bluntly, downright lying. Of course, drugs are not exactly health foods, but claiming marijuana will make your brain explode or you will develop an overwhelming desire to grab an axe and cut someone’s head off, even the dumbest druggie wouldn’t take seriously. Once authorities start to lie, people are not going to believe them when they do tell the truth about the nastier drugs like amphetamines and crack. (3)

When relatively innocuous drugs like marijuana and ecstasy are banned, is it really any surprise that kids turn to heroin and methamphetamines which are highly profitable for criminals? Just as wine drinkers don’t suddenly switch to whisky, where’s the logic that says marijuana is an automatic “gateway” to hard drugs?

“At the core of the campaign is the repeated claim that legal highs killed over 90 people in the UK in 2012. Drug Science … showed this to be false revealing that many drugs involved in this were illegal. … To base a new law on untruths is unpalatable at best and dishonest at worst.” (3)

It’s a real worry when doctors are not allowed to perform clinical trials or prescribe anything “illegal”, even if in their opinion it would benefit the patient. Where would you rather get your medical advice from, a politician or a doctor? While it is true many drug users look terrible and resort to crime to fund their habit, it is hardly surprising. Being constantly on the run from the police and ingesting rubbish from street dealers, of course they’re going to be in poor health. If coffee were sold the same way as heroin is today it too would surely be banned.

Thanks to media hysteria drug dealers have now become the most evil characters in the known universe – worse than rapists, murderers and terrorists. Even though all they’re basically doing is selling stuff to make people feel good, do they really deserve death, life imprisonment and the loss of everything they own? It’s a crazy world all right.

“When people start to break one set of laws, the lack of respect for the law inevitably spreads to all laws, even to those that everybody regards as moral and proper – laws against violence, theft and vandalism.

“Prohibition was imposed for our own good. Alcohol is dangerous substance. But where did Prohibition lead? New prisons had to be built to house the criminals spawned by converting the drinking of spirits into a crime against the state. Al Capone and Bugs Moran became notorious for their exploits – murder, extortion and hijacking. Who were their customers? Respectable citizens who would never themselves have approved of or engaged in the activities that Al Capone made infamous. … Prohibition didn't stop drinking. It did convert a lot of otherwise law-obedient citizens into lawbreakers." (4)

And must we look forward to the same old “war” for another hundred years? Probably. But there are some glimmers of hope with marijuana decriminalisation in some US states, plus Holland and Portugal often turning a blind eye. Drug abuse should not be a criminal or a moral issue, so why not start treating addiction for what it really is – a medical problem?

David Frankland
Perth WA

1. MBaumeister, Scientific American April 2015, pp50-51
2. New Scientist, 8 Aug 2015, p27
3. New Scientist, 13 June 2015, pp24-25
Stars and stats

Tom Hart’s interesting comments on “the Birthday Paradox” (The Skeptic, 35:2, Letters p 61) brought to mind an experiment we conducted back in the mists of Skeptics history. In late 1989 a subscriber, Ronald Evans from South Australia, prevailed on the editor to ask subscribers to include their date of birth with their renewal form. His purpose was to ascertain which ‘star sign’ predominated among Skeptics.

In the event, some 316 subscribers complied, more than 40% of our then membership. Ronald computed the results and came to the (unsurprising) conclusion that Skeptics birthdays tended to be pretty evenly distributed among the dozen zodiacal ‘signs’. This, despite the confident predictions of assorted astrological practitioners that they would concentrate within certain signs.

As I was then responsible for collecting the mail, I decided to test the “birthday paradox” as a side issue. I knew that statistically the fact was that the chances of two people from a group sharing a birth date became better than even with 23 people counted. With this in mind I opened the renewals and noted the birth dates. I found my first set of ‘twins’ within the first ten letters, the second pair emerged within the first 14 and a third within 19. This seemed to indicate that statistics was right and ‘common sense’ was wrong.

I continued with my survey until all 316 respondents had been tallied and found 62 sets of ‘twins’, 14 sets of ‘triplets’, four of ‘quadruplets’ and one set of ‘quintuplets’. Further, I found that four sets of ‘twins’ were actually born on the same day in the same year and that one of the ‘quintuplets’ was my mother.

Curiously, 81 dates (22% of a year) accounted for 187 (59%) of our respondents while the remaining 129 (41%) were spread across the remaining 284 (78%) days of the year.

No doubt it was a pretty meaningless exercise but it was fun to do. For all the details of these surveys you can go to the Skeptics web site and look under the compilation of Skeptic issues from 1986-1990 entitled “The Second Coming” in the Astrology section. (http://tinyurl.com/p6zpg8f)

Barry Williams
Roseville, NSW

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CRYPTIC CROSSWORD SOLUTION

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DR BOB’S QUIZ SOLUTIONS

1. He believed that it would attract real gnomes.

2. A flock of starlings stood on the minute hand – German bombing having failed to stop the clock working all throughout WW2.

3. Albania, 14 Nov 1982 – with 1,627,968 voters a 100% turnout and either 1 or 9 spoilt papers (and 1 or 9 people’s careers not exactly moving upward).

4. Gautama, the Buddha.

5. Power failure, due to voltage drop when the electric chair was being tested in the next room. Rather poor taste, really.
Local Skeptical Groups

VICTORIA

Ballarat Skeptics
Meets the first Friday of the month at Seymours on Lydiard Street
https://www.facebook.com/groups/39781220309544

Citizens for Science – Mornington Peninsula
(formerly Peninsula Skeptics, aka The Celestial Teapot)
Contacts: Graeme Hanigan 0438 359 600
http://www.meetup.com/Citizens-for-Science/
www.facebook.com/groups/peninsula.skeptics/

Great Ocean Road Skeptics – Geelong
Meets on the last Wednesday of each month from 6pm, City Quarter, Cunningham Pier East Geelong
Contact: Carolyn Coulson carolco@barwonhealth.org.au
https://www.facebook.com/groups/147741491945391/
The Surfcoast Summer Skepticamp is run annually by members

Melbourne Eastern Hills Skeptics in the Pub
Meets second Monday of each month at The Knox Club, Wantirna South.
Contact: Andrew Rawlings
mehs@codenix.org
http://mehs@codenix.org

Melbourne Skeptics in the Pub
Meets on the fourth Monday of every month from 6 pm at the Mt View Hotel in Richmond.

Mordi Skeptics in The Pub
Meets at 7.30pm on the first Tuesday of each month at the Mordialloc Sporting Club. ($2 to cover website costs)
http://www.meetup.com/Mordi-Skeptics-in-the-Pub/

TASMANIA

Launceston Skeptics
Contact: Jin-oh Choi, 0408 271 800
info@launcestonskeptics.com
www.launcestonskeptics.com

Launceston: Skeptics in the Pub
1st & 3rd Thursday of each month
5.30pm @ The Royal Oak Hotel

Launceston: Skeptical Sunday
2nd Sunday of each month
2.00pm @ Cube Cafe

QUEENSLAND

Brisbane Skeptics in the Pub
Meets on the first Tuesday of each month from 6.30pm at the Plough Inn, Southbank
http://Brisbanesitp.wordpress.com - follow links for Facebook, Twitter and email list

NOTE: LISTINGS WELCOME
We invite listings for any Skeptical groups based on local rather than regional areas. Email us at editor@skeptics.com.au with details of your organisation’s name, contact details and any regular functions, eg Skeptics in the Pub, with time, day of the month, location etc. Because this is a quarterly journal and most local groups meet monthly, it is unlikely we will be able to include references to specific speakers or events.
#AusSkepCon

AUSTRALIAN SKEPTICS NATIONAL CONVENTION

October 16th – 18th

convention.brisbaneskeptics.org