THE SKEPTICAL INTELLIGENCER

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Incorporating the Skeptical Adversaria: the ASKE Newsletter

Edited by Michael Heap

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AN IMPORTANT DATE FOR YOUR DIARY

The 18th European Skeptics Congress will be held at the University of Ghent from Friday August 30th to Sunday September 1st, 2019. The organisers of Q.E.D. in Manchester are taking a well-earned rest in 2019, so those of you who regular attend this event will still have the opportunity to meet up once again with your skeptical friends from far and wide. The event is jointly hosted by the Dutch and Belgian Skeptics. Ghent is a wonderful, vibrant city with many historical attractions. And of course there is the Belgian beer. How could you resist? The website will be up and running soon.

Roger Scotford

The latest Newsletter of the British False Memory Society conveys the sad news of the death of Roger Scotford. Roger founded the BFMS in 1993 amidst concern about the growing number of families in North America, Europe, Australasia and elsewhere who had been torn apart by accusations of historical sexual abuse against a parent and sometimes other relatives and even neighbours. These accusations, sincerely held to be true by the those making them, were solely based on 'memories' of the alleged events uncovered during psychotherapy. Often the information thus elicited was extensive and elaborately detailed, and would become increasingly so as the therapy proceeded. Roger had his own personal experience of this and with his colleagues at the BFMS he worked tirelessly to bring this dreadful scandal into public awareness and to provide help and guidance to many people in the UK whose lives had been ruined by such allegations.

Despite there being no other evidence to back up the accusations, and even contrary evidence, the accused persons were sometimes charged, tried, convicted and sentenced. It may come as a surprise to some readers that miscarriages of justice are still happening, as the November 2018 BFMS Newsletter reveals (*note 1*). So let us remember

FROM THE ASKE CHAIR Michael Heap

Roger and continue to support his fight for justice and reparation for those unfortunate enough to be caught up in these terrible events.

John Maddox Prize

A scientist, Terry Hughes, who is documenting the devastating decline of the world's coral reefs, and a former naturopath turned whistle-blower on the alternative therapy industry. Britt Hermes, have been jointly awarded the prestigious John Maddox prize for championing science in the face of hostility and legal threats (*note 2*).

Research integrity

It has recently been announced (note 3) that the largest ever database of scientific retractions has just gone live. 'More and more studies are being pulled from the scientific record. This is a great thing for science. A retraction means a journal no longer stands by one of its articles. The process can be initiated by a journal or study author after problems are detected, and it typically involves some kind of investigation, and then a statement explaining why claims in the article are being withdrawn or reversed (though some journals are more forthcoming with details than others).' The database may be accessed at the Retraction Watch website (note 4).

Meanwhile, the saga of the failure to replicate previously published psychological experiments continues. 'Over the past few years, an international team of almost 200 psychologists has been trying to repeat a set of previously published experiments from its field, to see if it can get the same results. Despite its best efforts, the project, called Many Labs 2, has only succeeded in 14 out of 28 cases. Six years ago, that might have been shocking. Now it comes as expected (if still somewhat disturbing) news' (notes 5 and 6).

Postscript to 'Big cat sightings yet again'

In the previous issue of the *Intelligencer* I wrote about the regular occurrence of big cat sightings in the UK. More recently a reported sighting of a black panther in East Ayrshire (caught on camera) caused panic amongst locals and led to a police helicopter search. After consulting an expert on big cats it was concluded that the animal was of the domestic variety. And there are currently reported sightings of a black panther or puma in Cumbria (Google 'puma Cumbria').

Notes

- 1. http://bfms.org.uk/newsletters/
- 2. http://tinyurl.com/ydz59c2x
- 3. <u>http://tinyurl.com/y9qvcqjw</u>
- 4. https://retractionwatch.com/
- 5. http://tinyurl.com/y77a6kds

6. The original study may be found at https://osf.io/8cd4r/.

Editor's Announcement

ASKE's *Skeptical Intelligencer* is widely circulated electronically to skeptical groups and individuals across the globe. Formal and informal articles of interest to skeptics are welcome from people of all disciplines and backgrounds. Details about house style are available from the Editor. We also welcome writers who would like to contribute a regular column - e.g. an 'On the Fringe' feature or take over one of the regular features.



Skeptical Intelligencer, Winter 2018

LOGIC AND INTUITION

Don't, as I was, be put off by the idea that you have to be an expert in advanced mathematics to solve this wonderful little puzzle. I showed it to a friend and he quickly came up with a solution that only requires some basic knowledge of algebra plus everyday reasoning ability. If you have completely forgotten your algebra, there's a hint for you at the bottom of the page. Avoid looking at this if you don't want a hint.

At a meeting of Sheffield Skeptics in the Pub in February this year entitled 'Nerdy Life Maths', Katie Steckles informed us of this: square any prime number equal to or greater than 5, deduct 1 and your answer will always be divisible by 24. Can you prove this? Answer on page

Hint for puzzle

Recall your algebra lessons at school. How do you factorise $p^2 - 1$?



European Council for Skeptics

Organisations

There are quite a number of countries with national skeptical organisations, many of which are affiliated to ECSO. Contact details for ECSO are: Address: Arheilger Weg 11, 64380 Roßdorf, Germany Tel.: +49 6154/695021 Fax: +49 6154/695022 Website: http://www.ecso.org/_(which has an email contact facility) Facebook: https://www.facebook.com/skeptics.eu/ ECSO also has a Twitter handle, @SkepticsEurope. The ECSO website now has a comprehensive calendar of skeptical events taking place across Europe, replicated at the ESP website (below).

The ESP - European Skeptics Podcast



Building a bridge for skeptics

The ESP has completed its 149th Podcast, an interview with German science communicator and skeptic Julia Offe. The ESP website also features a calendar of skeptical events taking place throughout Europe and news items of relevance to skeptics.

http://theesp.eu/

THE EUROPEAN SCENE

Germany

From Martin Mahner of the German Skeptics (GWUP): 'In case you haven't seen it yet, here is a video of our annual tests of paranormalists (featuring, among others, our chairwoman Claire and me)': At:

http://tinyurl.com/y8tlj6rj

From Edzard Ernst: 'The black/green government of Baden-Wuerttemberg has decided to create a 'chair of naturopathy and integrated medicine' at the university of Tuebingen in 2019. The chair will focus in the area of Treatments such oncology. as homeopathy and anthroposophical medicine will not be taught but merely mentioned in lectures. Ideologies and everything that is not science will be omitted. The chair will thus deal with nutrition, acupuncture and probiotics' (er...):

http://tinyurl.com/y7ys4wbe

And Edzard Ernst also provides us with some answers to the question 'Why do so many German doctors practise homeopathy?'

http://tinyurl.com/ybdprljd

Austria

'The end of homeopathy at the Medical School, University of Vienna'. Edzard Ernst again at:

http://tinyurl.com/y8k4wdnt

Spain

'The Spanish government has announced plans to eradicate

alternative medicine such as acupuncture or homeopathy from health centres.

'The proposal, unveiled by the science and health ministers, aims to avoid the "potential harmful effects" of the practices when they are used as an alternative or a complement to treatment that is itself based on "proof and scientific rigour", the government said in a statement.'

http://tinyurl.com/y8hue55z and http://tinyurl.com/ydcdwryv

Ireland

From Evidence Matters Ireland: 'Data released today show that thousands of clinical trials conducted in Europe violate EU rules that require results to be published within 12 months.'

'Sixteen members of the public from varied backgrounds, ranging from a beekeeper to an inter-county hurler, each gave a 1-minute speech about why evidence personally matters to them. The speakers urged government to use evidence in policy making on housing, loneliness, the environment, cycling and the Irish language.

'This is just the start of conversation between TDs, members of the Seanad, and citizens of Ireland, and we will be encouraging further discussions as part of our Evidence Matters campaign.' See:

http://tinyurl.com/y8q3aq6z

Italy

'In a surprising move, the Italian government fired all 30 members of its Higher Health Council on Monday. This is a council of scientific experts, typically with 3-year terms, whose job it is to advise the government on science and health issues. As an isolated incident this is concerning enough, but unfortunately this is part of a deeper trend we need to confront.

'The firing has some context. The Health minister, Giulia Grillo, is part of the Five Star Movement (M5S), which is now the senior member of Italy's ruling coalition. M5S is a populist movement who has outspoken anti-vaccine views, and supports dubious alternative medical practices. When an anti-vaccine government suddenly fires all their health experts, there is reason for concern.'

http://tinyurl.com/y83nsz3e and http://tinyurl.com/y8gewdx8



MEDICINE ON THE FRINGE

Michael Heap

Medicine on the Fringe Playing roulette with vulnerable people's feelings is the antithesis of care

Emma Barnett

Falling pregnant is in some ways like winning a game of chance. One either succeeds or one doesn't. There's no partial outcome (note 1). I'm not talking here about whether a baby is successfully delivered or the gambler actually collects his or her winnings; either one is pregnant or not and either one's number comes up (or whatever), or it doesn't. The outcome of many gambling games (e.g. betting on the toss of a coin) is purely, as we say, 'determined by chance' but for others, knowledge and expertise may enhance the probability of a successful outcome (this topic will be addressed in a future 'Logic and Intuition'). Regarding pregnancy, as long as the two participants do the right thing, much is 'left to chance' but again there are things that can be done to enhance the likelihood of conception (note 2).

If one adopts a strictly deterministic position then by 'chance' we seem to be referring to those factors that are out of our control. We cannot, for example, toss a coin in such a way that it will always fall heads up; hence we may say that 'it's left to fate'. Likewise there are physiological factors that may affect the chances of conception that neither party can do anything about.

The more uncertain a successful outcome due to these 'chance' factors,

the more attempts required to achieve it, and the more desperate the need to do so, then the more likely it is that the behaviour of the participants will come under the influence of erroneous practices – religion, beliefs and superstition, pseudoscience, and crackpottery of every description. And in the case of the desire to conceive, there more 'experts' there will be on hand to exploit the couple's' desperation.

In November 2018 a consensus statement agreed by 11 organisations, including the Human Fertilisation and Embryology Authority, was published that expressed concerns about how frequently private fertility clinics are charging patients for optional extras without any evidence that they increase the chances of pregnancy. Couples were often persuaded by private doctors to buy these 'add-ons', costing up to £3,500 a time, such as 'glue' or a painful 'scratch' to help an embryo stick to the wall of the womb.

According to one newspaper (note 3) 'Tracy Wint underwent two years of unsuccessful IVF treatment, spending more than £20,000 to have a second child with husband Mark. 'In that time she claims Oxford Fertility "dangled" additional treatments at them when they were vulnerable. ... The couple say doctors convinced them to pay an extra £7,000 for "worthless" add-ons. Mrs Wint, 41, said: "We feel like we've paid out thousands for add-ons that are not proven to work and carry health risks". ... After a miscarriage,

Mrs Wint went on to have three cycles of IVF, all of which failed'.

In the *Times* on 18,11,18 there was a column by Emma Barnett titled 'When you're desperate to conceive, you'll pay anything and clinics are cashing in'. She describes her and her husband's experience of 2¹/₂ years trying for a baby. Reluctant to take the IVF route they persisted 'month in, month out' in doing it 'the natural way' until finally Ms Barnett embarked on a search for alternative methods such a acupuncture, 'in a dingy basement in Manchester's Chinatown ... from a gruff man who couldn't speak English and simply nodded in a confused fashion when I told him that I have endometriosis and wanted to get pregnant'. He then sold her some herbs for £75 to be drunk in hot water twice a day. Then followed colonic irrigation then 'I felt crystals being pushed into my palms and was advised to change my entire diet. This is why I gave stool samples to a nutritionist and bought all manner of expensive vitamins and powders to neutralise my stomach and general digestive system'. Eventually a medical doctor persuaded her and her husband to try IVF - and it worked.

Notes

1. The website MedicineNet defines pregnancy as 'The state of carrying a developing embryo or fetus within the female body'.

(<u>http://tinyurl.com/ycam7al9</u>).

- 2. http://tinyurl.com/y8unhzgr
- 3. <u>http://tinyurl.com/yalbxuqp</u>



Riders on recent entries: the status of oral traditions

In 'Expertise and Scholarship Devalued and Ignored' (Skeptical Intelligencer 20:3 (2017)), I rehearsed and critiqued the claims of Simon Keegan in his 2016 book Pennine Dragon: The Real King Arthur of the *North* to the effect that the legendary King Arthur's court was at Slack near Huddersfield. Of course, there are very many more such proposals, all contradicting each other. But there is also some scholarly literature addressing such claims in an overtly skeptical manner. A recent book along these lines is Miles Russell's 2017 work Arthur and the Kings of Britain. Russell is (to say the least) bold in concluding that there is after all much truth in the C9 'history' attributed to Nennius and in Geoffrey of Monmouth's C12 book History of the Kings of Britain (the source of the stories of the kings Bladud, Cole and Lear; it also includes a body of Arthurian lore). In this context, Russell arguably places too much reliance on orally transmitted heroic tales (see below on Alan Garner, etc.) and on narratives other fragmentary of uncertain reliability. But he also concludes that there is no good reason to suppose that Arthur, specifically, existed as a real man, as opposed to a composite figure developed by these medieval writers who can bear only a very remote and indirect relationship to any actual personages of post-Roman Britain. And Russell refers to earlier work along similar skeptical lines, such as Caitlin Green's 2007 tome Concepts of Arthur and Guy Halsall's Worlds of Arthur: Facts & Fictions of the Dark Ages (2013).

Halsall for his part does **not** regard oral traditions as especially reliable; in fact, on pp 137-139 of his book he attacks the tendentious reliance on 'folk memory' – often obscure, fragmentary and highly derivative – of

LANGUAGE ON THE FRINGE

Mark Newbrook

some fringe historians with 'axes to grind'. And all such authors should be treated with some suspicion where they (unwisely) stray (without scholarly support) into disciplines in which they are less expert. Halsall himself striving, as he does throughout, to adopt a semi-popular tone (he is open about this in his preface) - discusses the relevant linguistic (etymological) data rather casually and indeed at times inaccurately (see for instance pp 151-152). But in general terms his book, and the others cited here, furnish a salutary warning against accepting the claims of **any** author who thinks they have definitively identified Arthur, Camelot, etc. There is simply not enough hard evidence of any kind for the reality of **any** version of Arthur; and all the specific motifs can be better explained in terms of the realities and traditions of the pre-modern primary authors' own days.

There is simply not enough hard evidence of any kind for the reality of any version of Arthur.

Halsall also discusses the increasingly vexed question of when the Anglo-Saxons arrived in the British Isles, introducing the earliest varieties of the English language, and of their interaction with the Britons. This obviously bears upon the story of Arthur, seen as resisting these invaders, but is also of wider significance.

Lynne Kelly's thought about preliterate and literate civilisations, reviewed by me in Skeptical Intelligencer 21:2 (2018), is obviously relevant in the context of the reliability of tradition and oral history. There is no doubt that the entrenchment of literacy in a culture and the subsequent development of academic traditions in the humanities bring with them profound changes in respect of perspectives on the past, not all of

them necessarily beneficial. Local traditions not (or no longer) available recorded in print come to be seen as at best of dubious value to historians and such, by lay people and by some 'modernist' scholars. But there is another side to this matter. I discussed Miles Russell's views above. And the Cheshire fantasy writer Alan Garner has expressed (notably in his 2010 Bν Seven booklet Firs and Goldenstone: An Account of the Legend of Alderley) the stronger view that oral history and indeed local mythology **can** be regarded as reliable. Such traditions do sometimes turn out to be (surprisingly) accurate; for instance, some of the less dramatic myths and legends may be confirmed by archaeological discoveries, as Garner himself observes. And it is clearly counter-productive for scholars in any relevant domain merely to dismiss undocumented stories and other material, especially in cases where there is little or no documentary or archaeological evidence and where these oral accounts are thus the only sources of information. By requiring written authority for the forms he cited, the great C19-20 English dialectologist Joseph Wright excluded from all much consideration important 'uncorroborated' but often consistent orally transmitted data (and this was all the more damaging in his domain, given the very limited extent to which non-standard English has been used seriously and reliably in writing). In this very year of 2018, John Waddell in his Myth and Materiality has promoted the thesis that myth (often finally written down but originally oral) may archaeology, illuminate while archaeology may in turn shed light on myth (as per Garner's comments). For example, unwritten accounts by Maori tribes of their initial settlement of parts of New Zealand around 800 years BP meet with some corroboration from empirical data.

On the other hand, Garner does overstate his case somewhat. There are cases where rival, incompatible traditions appear and where (in the absence of harder evidence) it is thus impossible even for the keenest advocates of orality to arrive at a definitive account. Indeed, writers such as the neo-Velikovskyan David Talbott (see The Saturn Myth, 1980) who uphold the 'integrity of myth' (in this case, even across far-flung cultures) are often forced into what looks very much like special pleading in order to maintain the identity of the motifs in question and (even more so) the accuracy of their own readings of the narratives which they cite. And Jodi Dean, cited by Kurt Andersen in his 2016 book Fantasyland, which I reviewed in Skeptical Intelligencer 21:2 (2018), is obviously altogether mistaken in seeking to resolve some such issues by proclaiming (as noted, against Dean's own postmodernist quasi-relativist standpoint) that the beliefs of 'the oppressed' must be considered 'epistemologically superior'. The same applies to many other attempts to decide between rival uncorroborated narratives. And where they really do disagree they cannot all some be true (pace of the postmodernists!).

The justified ascription of value to oral material and myth in a historical context should not become the naïve, 'politicallycorrect' treatment of such narratives as infallible.

Furthermore, there are many cases where even very recent events turn out to have been misreported. misremembered, etc. The Australian anti-postmodernist historian Keith Windschuttle pointed out (see his series The Fabrication of Aboriginal History, etc.) that some alleged eyewitness accounts of e.g. C19 massacres of Aborigines - now freely cited by Aboriginal activists rights and incorporated into 'politically correct'

officially-endorsed accounts - were not only inaccurate but were provided by people who were hundreds of kilometres away at the time or in some cases had not even been born vet. Windschuttle's overall stance on Aboriginal/coloniser relations is highly controversial and he has been accused of bias and indeed of racism, but in some of these particular cases he appears clearly correct. And the cultural historian Ronald Hutton (see his 2009 book Blood and Mistletoe, etc.) provides many other examples of false - often, indeed, tendentiously concocted _ historical traditions dealing with events of the last two or three centuries. such as Iolo Morganwg's C18-19 ideas about the contemporary Welsh origins of traditions and cultural practices. The justified ascription of value to oral material and myth in a historical context should not become the naïve, 'politically-correct' treatment of such narratives as infallible. Garner himself seems to have fallen into this trap where he endorses recent Australian legislation which discourages the challenging of Aboriginal 'truths'.

In this specific context: in the last Skeptical Intelligencer I commented briefly on the view of Evan & Steven Strong to the effect that Homo sapiens originated from Australia. The Strongs too appear to regard Aboriginal lore as reliable on this and other issues. Another author with similar views is the part-Aboriginal Stella Wheildon, who argues in her article 'Ancient War in the Centre of the Earth: the Australia-India Connection' (in Nexus 25:5, August-September 2018) that scholars who regard oral traditions such as Aboriginal lore as fallible are clearly mistaken; indeed, the traditional beliefs of other peoples, and also modern scientific and historical strongly discoveries, support the dramatically non-mainstream narratives in question. It has to be said that mainstream scholars will take some convincing!

Riders on recent entries: words and power

In 'Language on the Fringe' (Skeptical Intelligencer 21:2 (2018), I discussed the 'Pure English' movement. Another scholar who was worried by foreign elements in post-Conquest English was J.R.R. Tolkien, who had a particular distaste for things French (even French food!). He avoided French-derived vocabulary in his own usage as far as possible. And he also emphasised (especially but not only in his fiction) the notion that 'words have power'; compare his friend C.S. Lewis' idea of 'Deplorable Word' in The the Magician's Nephew and other such ideas in fiction and beyond (see my review of the book The Lost Words by Robert Macfarlane & Jackie Morris in the last Skeptical Intelligencer). Interestingly, Tolkien combined this mystical stance with his highly rational professional philologising, for instance in relating the etymology of the highly relevant word *faerie* (from *fay* = 'fairy' plus the noun-formative -erie; the third letter sometimes bears a diaeresis) especially the Latin origins of fay in a root meaning 'speak' - to the notion that powerful spells can be cast by uttering the right (genuinely appropriate) words. He referred. apparently more than merely by way of analogy, to a 'mythical grammar' involving the magical efficacy of adjectives and other key words although (predictably?) he never developed any such 'grammar' in detail.

Another scholar who was worried by foreign elements in post-Conquest English was J.R.R. Tolkien, who had a particular distaste for things French (even French food!).

Tolkien also stressed the idea that sometimes one must employ 'elvish craft' to 'invent' new worlds in which these powerful and to a degree unfamiliar uses of words fit in with extra-linguistic reality. One of his examples was the expression green sun, which, however powerful it might be, finds no referent in our world and thus needs some such supporting 'poiesis'. One is reminded of the early Chomskyan focus upon 'collocational' constraints on supposedly grammatical but in fact more strictly semantic acceptability, involving examples of this very kind such as the more extreme case of green ideas (compare Andrew Marvell's a green thought in a green shade in his 1681 poem 'The Garden', and Greek parallels in, for example, Euripides' Bacchae). On the other hand, H.G. Wells in 'The Plattner Story' (one of his 1890s fantasies) describes unforgettably the moment when (in what may be the realm of the dead) 'the limb of a huge heavenly body of blazing green rose over the basaltic undulations of the distant hills'; a little later he uses the very expression green sun. (Tolkien himself was five years old when this story appeared.)

For more on this, see the essay 'Faerie: Tolkien's Perilous Land' by Verlyn Flieger, which occupies pp 35-44 of Catherine McIlwaine's book *Tolkien: Maker of Middle-Earth* (published to accompany a 2018 exhibition at the Bodleian Library in Oxford). Another of the chapterauthors in McIlwaine's book is Carl F. Hostetter, one of the world experts on Tolkien's invented languages ('Inventing Elvish', pp 46-57).

Tolkien also believed, it seems, that he himself had acquired older varieties of English formerly used in his own home area ... more readily than would students from other areas.

Tolkien also believed, it seems, that he himself had acquired older varieties of English formerly used in his own home area (where his family had long resided) more readily than would students from other areas. John Cowan, in comment on my statement to this effect on the 'Skeptical Humanities'

web-site, expressed the view that I was over-interpreting Tolkien's remarks, which were not intended in a technical/literal sense. On the other hand, Flieger interprets Tolkien's claim as if it was indeed intended literally; see his book A Question of Time: J. R. R. Tolkien's Road to Faerie (1997) (p 4). In any case: no positive evidence of such effects exists, and, if they were genuine, they would in fact be difficult to explain in scientific terms. Children clearly inherit a language-learning propensity (specific, as asserted by Chomsky, or more general); but they obviously learn the individual languages, accents etc. used by their early carers and in their communities. and if they have no contact with their biological parents they know nothing of the languages used by them. And the 'Mercian' varieties of Old English in question here predate Tolkien's early linguistic experience in Birmingham by a thousand years.

Gef revisited

A rider on a completely different front: another paranormalist who took an interest in Gef the Mongoose (Mark's Bookshelf, *Skeptical Intelligencer* 20:4 (2017)) was Nandor Fodor, who likened the Gef phenomenon to poltergeist events.

Teaching English to native speakers

An article with the title 'Parents "wrongly blamed for speech problems"' appeared in BBC News in 2012, and the matter rumbles on. It is reported that recent research suggests that parents and technology are being wrongly blamed for long-term speech and language problems. What is striking here is that the discussion suggests that there are 'two groups of children ... those with communication problems based on the way they [have] been nurtured and those based on nature'. These latter form a significant percentage of the ten per cent of children who allegedly 'have some form of long term communication difficulty that can affect them early, severely and for life ... Their brains don't process language in quite the same way that other children's brains do'. Now virtually all linguists are persuaded that the number of children whose linguistic problems are 'based on nature' is vanishingly small; these are children with extreme physical and/or mental disabilities. And the much larger group whose problems are perceived as involving nurture are regarded by linguists not as linguistically deficient but as having been exposed only to certain varieties and styles of speech which are linguistically legitimate in themselves but are socially disfavoured - and in some cases might to a degree hinder accommodation to school requirements (explicitness, etc.). Jean Gross, the authority cited in the key article, denied that the 'blame' for any of this should be laid at the doors of parents; but the differences of viewpoint which this discussion throws into high relief should still be addressed.

Some educationalists talk as if the 'phonic' method of teaching written English assists children in pronouncing words.

Another point which arises in this context involves speech versus writing. Some educationalists talk as if the 'phonic' method of teaching written English assists children in pronouncing words. But children who are learning phonics are already fluent speakers of their native varieties of the language. They are acquiring the written mode from that basis, not the other way round. Issues do arise where the phonic representations reflect accents other than those of the children in question, or where previously unknown words are first encountered in written form (where phonics may indeed help); but it is simply a mistake to think of phonics or any other spelling system (either established or novel) as coming first and phonology second.

It is, however true that some students have smaller vocabularies than others and in consequence underperform in school; **this** is **not** a myth! (On the other hand, some students know community words which their teachers do **not** know, and unless they say them in school and are asked about them this **positive** feature of their speech may escape notice.)

Some research suggests that four out of 10 pupils in their first year of secondary school 'have limited vocabulary' through not having the habit of reading (though the notion of 'limited' needs defining here) (1).

It has also been suggested that even adults' heavy use of emoji (as discussed a while ago in this forum) is leading to 'serious decline' in English skills (2). But the context of this claim is that of adults' lack of confidence in their first-language skills, including spelling and grammar, and, while emoji - which involve no spelling and so far only minimal grammar - might be responsible in part for problems in these areas, many adults have imbibed prescriptivist ideas about these aspects of language which encourage them to be too worried about 'incorrect' spelling (though standardisation must obviously be eventually required in this area) and in particular to be insecure about what is often quite normal and effective adult usage. More careful investigation and more sophisticated conceptualisation are needed here.

A more obviously dubious Englishteaching enterprise is that of Shyam Mehta, who is apparently a

mathematician and also regards himself as an authority on various other subjects including yoga and social psychology. He has frequently engaged in strongly worded exchanges of opinion with academics from Oxford and other institutions who have declined to comment on his material and/or to summarise their own ideas for his scrutiny, who have labelled his material as 'nonsense' or the like, or who simply do not comment on his statements in terms polite enough for his taste (he will not stop writing to them until they do!). These exchanges are published in his work Oxford University: Intellectual Bankruptcy, Immorality, Financial Incompetence (3). More to the point here, he has published a book entitled How to Teach Your Child English (4). In the preface, he announces that 'grammar is ingrained' and that children learn to speak without any knowledge of grammar (one assumes that he means conscious knowledge). What needs to be taught is a set of 6000 or so words in a certain sequence relating to wordlength (3-letter words before 2-letter words, etc.), basic usefulness, etc. Later SM says that once a child has mastered the alphabet, the more basic words and the punctuation of English he or she will have 'learnt the use of this aspect of grammar' (eh?). Etc., etc. It is not made clear at the outset, as it should be, whether or not the child in question is a native speaker of English. Enjoy!

Afrocentrism in Florida!

Jason Colavito has drawn attention to the fact that Miami-Dade County Public Schools in Florida now have a lesson plan for teachers to inform students that Africans, Arabs, and the Chinese explored and colonized the Americas prior to Columbus. This material is based on repeatedly debunked claims (supported by linguistic as well as other 'evidence') emanating from Ivan Van Sertima and other Afrocentrists and from other pseudo-historians such as the submariner Gavin Menzies. The students are to be encouraged to write letters to textbook editors urging that pseudohistorical claims about Old World exploration of the Americas in pre-Columbian times be included in the next edition. Once again, it is felt to be necessary to endorse ideas of this kind for the sake of 'diversity' and 'equality', despite the utterly weak 'evidence' supporting them and the huge body of evidence supporting the views arrived at by serious scholars.

Notes

- 1. http://tinyurl.com/y7ean4jm
- 2. <u>http://tinyurl.com/y7kl5sf3</u>
- 3. http://tinyurl.com/y976a57f
- 4. http://tinyurl.com/y8xrtxcf

REVIEWS AND COMMENTARIES



Brief Answers to the Big Questions by Stephen Hawking. London: John Murray, 2018. ISBN 978-1-473-69598-6. Paperback.

The 'final book' by Stephen Hawking, 'The King of Infinite Space'.

Reviewed by Richard Rawlins

Isaac Newton was not a scientist. That term was not coined until 1833 when William Whewell introduced it anonymously, and satirically. Newton was a 'natural philosopher' – conducting experiments based on observations but more fundamentally, thinking about the nature of nature. Whewell subsequently owned up to his neologism in *The Philosophy of the Inductive Sciences* (1840):

As we cannot use physician for a cultivator of physics, I have called him a physicist. We need very much a name to describe a cultivator of science in general. I should incline to call him a Scientist. Thus we might say, that as an Artist is a Musician, Painter, or Poet, a Scientist is a Mathematician, Physicist, or Naturalist. In his posthumously published last book, Professor Steven Hawking declares 'I am a scientist' – and as befits a successor to Newton's Lucasian Chair of Mathematics at Cambridge, amply sets out not only the cultivation of science he exercised in the field of cosmology, but also in philosophy more generally. Based on his many essays, lectures, speeches, to say nothing of his academic papers and commentaries on his motor neurone disease, *Brief Answers* does what it says on the cover.

With a thoughtful foreword by Eddie Redmayne, whose portrayal of the scientist in The Theory of *Everything* won an Oscar. a fascinating introduction by Nobel laureate Kip Thorne which sets the academic milieu, and a sympathetic afterword by his daughter Lucy, Hawking's last book gives a well-rounded depiction not only of answers to important questions, but of the mind which provided them. Recognising it is the nature of science that all answers are only temporary until the next one comes along, the journey that readers of this book undertake alongside the famous wheelchair is illuminating (but never faster than the speed of light), insightful (what else), instructive (but not didactic). and inspiring (inevitably).

Written for the general reader, only two equations are offered: Einstein's $E = mc^2$ and Hawking's $S = \pi Akc^3/2hG$. The latter is inscribed on Hawking's memorial stone in Westminster Abbey - expressing the glow from a black hole now known as Hawking radiation. Heisenberg's Uncertainty Principle is described in English, not mathematically. 'The uncertainty in the position of a particle times the uncertainty in its speed is always greater than Planck's constant (h) divided by twice the mass of the particle.'

When reading, most will hear the computer voice which gave emphasis to the wry humour so often expressed in life and so evident in this text. Hawking told the examiners for his degree at Oxford: 'If they gave me a first, I would go to Cambridge. If I only got a second, I would stay in Oxford. They gave me a first.' He answers the question as to whether time can go backwards with a Limerick:

There was a young lady of Wight, Who travelled much faster than light. She departed one day, In a relative way, And arrived on the previous night.

Only two equations are offered: Einstein's E=mc2 and Hawking's $S=\pi Akc3/2hG$. The latter is inscribed on Hawking's memorial stone in Westminster Abbey.

And when he was in the Far East: 'I was asked not to mention the Big Crunch, because of the effect it might have on the market. But the markets crashed, so maybe the story got out somehow. In Britain, people don't seem too worried about a possible end twenty billion years in the future. You can do quite a lot of eating, drinking, and being merry before that.' As the professor's remarkable life attests.

The Big Questions have been asked since *Homo* became *sapiens*. Not all the Answers are in - though Hawking suggests they will be during this century. He provides brief answers to the most important including: 'Is there a God?'; 'How did it all begin?'; 'Is there other intelligent life in the universe?'; 'What is inside a black hole?' and 'Will we survive on Earth?'

Sceptics expect ideas to be challenged and evidence evinced. Hawking's evidence is in mathematical papers too technical for the general readership to which this book is directed. But his logic cannot be faulted by the sternest critic of his thinking, and those who feel the universe quaking beneath their boots as (almost) all is revealed will do well to reflect – what other answers can there be? Faith is an anachronism. Hawking courteously explains why.

I think it is a bit cheeky for a physicist to opine 'I think computer viruses should count as life', but even here I detect Hawking's droll sense of provocative fun as he explores the physics behind the Weak Anthropic Principle, reflects on the possibility of civilisations elsewhere in the universe more advanced than or own, and urges us to 'Be curious'.

Not manv scientists quote Shakespeare, but Hawking reminds us that Hamlet said: 'I could be bounded in a nutshell, and count myself a king of infinite space' - taking that as a metaphor 'for the freedom our minds have to explore the whole universe, and to boldly go where Star Trek fears to tread.' This book effectively expresses Hawking's mind: 'The universe in the past was small and dense and so is quite like the nutshell with which I began. Yet this nut encodes everything that happens in real time. So Hamlet was quite right. We could be bounded in a nutshell and count ourselves kings of infinite space.' Which is where King Stephen now resides, for all time.

Richard Rawlins is a retired orthopaedic and trauma surgeon and author of 'Real Secrets of Alternative Medicine'.



Studies at the Frontier of Historical Linguistics: New Methodological Insights and Issues in Historical Linguistics

David Leonardi Self-published 2018, pp 194

Back in 2014. I reviewed in this forum (in two pieces) David Leonardi's last book, published in the previous year: Egyptian Hieroglyphic Decipherment Revealed: a Revisionist Model of Egyptian Decipherment Showing Evidence that the Ancient Egyptian Language and the Ancient Hebrew Language are Closely Related. (For more on Leonardi's older work, see the relevant sections of my 2013 book Strange Linguistics.) The main focuses of Leonardi's thought are: (a) the allegedly close relationship between Egyptian and Hebrew (as in his 2013 book); (b) (associated with (a)) the alleged misinterpretation of Ancient Hebrew by medieval and later scholars and of the Egyptian language by the C19 decipherers; (c) the allegedly close relationship of early Hebrew with a recent 'Proto-World' (the supposed single ancestor of all human languages), as might be suggested by a literal reading of Genesis; (d) the alleged methodological (especially statistical) errors of most mainstream historical linguists in arriving at their contrary view that Proto-World (or multiple ancestor languages) long pre-dated all known languages, was therefore in no way especially close to Hebrew or any other known language, and cannot in fact be reconstructed; Leonardi for his part holds that in contrast the figures support the view that such deep-time relationships can be demonstrated, at least to a degree, and that his specific findings favour his theory that early Hebrew was indeed close to Proto-World. (Compare the ideas of Isaac Mozeson, discussed in my 'Language On The Fringe' column in Skeptical

MARK'S BOOKSHELF

Mark Newbrook

Intelligencer **21:2** (2018) and referred to here by Leonardi on pp 86-87.)

In this last respect, Leonardi aligns himself (in my view, without an adequate grasp of the issues) with a minority group of C20-21 professional historical linguists who hold that relatively recent dates for Proto-World should be accepted and thus that Proto-World can (perhaps) be reconstructed in part, using methods rather like those employed by Leonardi (albeit more sophisticated; for example, they rightly focus upon the oldest available attested or reliably reconstructed forms, which Leonardi himself sometimes omits to do; see for example his discussion of English and Thai on p 61 of this book). (It is agreed by **all** parties that the more 'comparative' reliable method of establishing historical relationships between languages and language 'families', which crucially involves systematic correspondences between phonemes and forms, cannot itself be extended far enough into the past to be used here. Leonardi refers to this contrast of methods on pp 20-21, 32-33.) The best-known figure in the minority group is Merritt Ruhlen, and Leonardi refers to his work and that of his followers (for example on pp 29-32, 45-47), and also (especially on pp 55-66) to that of Alexis Manaster Ramer, William H. Baxter, Lionel Bender, etc.: some of these linguists are in fact theoretically closer to Ruhlen than are others. (Like some other nonmainstream writers, Leonardi at one stage appeared to be regarding Ruhlen core-mainstream and reliably as authoritative; but, while he still endorses Ruhlen's stance against coremainstream opposition, he now seems more aware of Ruhlen's perceived 'maverick' status.) On pp 12-13, 20-21, 32-33, 46-47, 66, etc., Leonardi critiques the mainstream position referred to under (d) above, makes some very forthright and inadequately defended statements (for example, on p

12 he rejects as too high the 'rule-ofthumb' figure of 5% normally given for chance linguistic similarities, without here presenting or foreshadowing any argument), and accuses the leading linguists in question of fatally misunderstanding or misrepresenting the ideas of the minority group.

Leonardi aligns himself (in my view, without an adequate grasp of the issues) with a minority group of C20-21 professional historical linguists who hold that relatively recent dates for Proto-World **should** be accepted.

Leonardi's titles for his works, and indeed his self-appraisal generally, are typically dogmatic, not to say bombastic, and the title and tone of this his latest book is in the same vein. It is important to remember in this context that while Leonardi is quite widely-read in linguistics he has no formal background in the discipline and frequently displays confusion – and is unwilling to be corrected on his errors. He disputes or ignores clearly valid points made in correspondence, for instance on the morphology of Greek (as he admits on p 87 of this book, he is still insufficiently familiar with this language) and on the thought of mainstream linguists and in particular that of the leading morphologist Peter Matthews (which he misunderstands): and he does not refer to reviews even by way of attempted rebuttal (because most mainstream linguists would not be aware of him, he presumably receives feedback mainly from his own allies, on whom see below). Furthermore, his exposition of his own ideas has often been obscure, and this problem arises again in this present work (as is agreed by another reader whose help I enlisted; see below). Leonardi is in fact merely the founder and leader of an

idiosyncratic online discussion group with the misleadingly mainstreamsounding name 'Historical Linguistics'. His self-confidence and his status as a 'big fish in a small pond' should not deceive unwary readers, especially those who have ideological reasons for hoping that he is correct about Hebrew.

My main focus here is upon the Preface (pp 5-8) and Chapters 1-3 (pp 9-78), where Leonardi presents most of the novel material in this book.

His self-confidence and his status as a 'big fish in a small pond' should not deceive unwary readers, especially those who have ideological reasons for hoping that he is correct about Hebrew.

In the course of his argument in these chapters, Leonardi (to his credit) attempts more overt use of statistics than do most other such authors (see especially pp 34-36, 47-65, 75-78). But, in considering the statistical likelihood of word forms in apparently unrelated languages being themselves related (either by shared 'genetic' origin or through contact and degrees of bilingualism), he seems to be trying to assess probabilities of accidental similarity in an egregiously 'coarsegrained' manner, ignoring the point (regarded by linguists as crucial) that the precise likelihood of accidental (unsystematic) similarity between pairs of words, as opposed to genuine connectedness of one kind or another, will depend upon a number of factors (this is why the 'rule-of-thumb' referred to above can be no more than that, contrary to Leonardi's perception). These factors include:

(a) the degrees of (unsystematic) phonological and semantic similarity between words which are required if they are to be counted as shared (there is obviously a degree of subjectivity in many such cases, but writers such as Leonardi have a bias in favour of 'finding' such similarities where they bolster their own theories and not recognising them where they would appear to support alternative non-mainstream theories; this pattern of interpretation is predictably common in non-mainstream work produced by authors with ideological or personal 'axes to grind' - many of whom are simply unfamiliar with the requirement of systematicity)

- (b) the phonological and semantic systems of the relevant languages (for example, how far the major groups of phonemes are shared or have close systemic equivalents)
- the lengths of the words (for (c) example, if two languages not known to be connected share a very short word-form such as [sa] with the same meaning, this could very well be accidental, whereas if they share the form [tolpesveblig], again with the same meaning, or transparently with related meanings, this is less likely); in fact, in cases involving longer words, Leonardi tends to focus on sub-components of the words, typically the initial few phonemes and/or the consonants rather than the vowels (this latter, like some of Leonardi's errors regarding Greek, is to be expected of a nonmainstream Hebraicist with a limited knowledge of non-Semitic languages); see for instance his example on p 50 involving roots featuring the consonants [r] and [d]); he thus obscures this specific factor
- (d) the cross-linguistic frequency of the sounds and sound-sequences in question (very widely-shared sounds such as [e], [s], etc. or common sound-sequences such as [til] or [po] are more likely to be shared by chance than sounds and sequences found in relatively few languages)
- (e) vocabulary size in the various languages in question (which Leonardi admittedly does discuss, albeit only very briefly and with a

focus on **samples** of vocabulary, on p 60)

The (anonymous) second reader whose help I enlisted, who is a professional statistician (but, it should be noted, not specifically trained in linguistics) agrees with these observations. He also notes that Leonardi's use of statistics, more generally, appears naïve. Judging from, for example, his laboured explanation of the Poisson distribution on p 49 (where he also appears not to define 'n'), Leonardi seems, in fact, to be making some unjustifiable assumptions and statistical errors. His critiques of mainstream historical linguistic methods in this area, and his own statistically-based proposals, therefore appear at best very doubtful.

Leonardi might hope to develop a stronger case for his claims if he placed more emphasis on grammar (morphology and syntax). But (as adumbrated above) grammar (especially that of languages other than Hebrew) is not his strong point, and in (like most fact non-mainstream historical linguists) he has little to say about it, focusing mainly on lexical phonology (words and their pronunciations), where his problems as set out above arise.

On p 48, while 'building up' to some statistical comments, Leonardi introduces a four-way typology (similar to typologies presented in his earlier work) involving various kinds of (accepted or purported) correspondence between word forms which are regarded as ('genetically') unrelated or are liable to be so regarded by those coming to the material. Confusingly, he includes here (as 'Category 3') 'actual related correspondences which do not count as a correspondence because of phonetic change having obscured the resemblance'; that is to say, it would probably not have occurred to analysts of any persuasion to treat them as possibly related if it were not known that they were, and Leonardi reasonably excludes them from his further analysis. But such forms - most of them in fact 'genetically' related – are very typically known to be related only through

analysis of systematic but opaque phoneme-correspondences in relatively shallow time (see above), and they are essentially irrelevant to Leonardi's discussions of putative deeper-time correspondences. (One such example is the surprising historical identity of English fig- in figment and -dise in paradise, both coming from a common Indo-European root meaning 'build'.) In any event, Leonardi's subsequent of specific discussions alleged correspondences (for example on p 50) are often obscure and/or confused.

In Chapters 4-9 (pp 79-172), Leonardi takes up again (and develops somewhat) (i) his discussions of Hebrew and Egyptian and their supposed lexical links with English and a wide range of other languages, and (ii) his confused/confusing theories of derivational morphology, vocabulary 'strata' ('basic' versus 'advanced'/ 'abstract', different languages of origin; he introduces these notions here on p 13) and 'borrowing' – much of which forms the main content of his earlier books. Because of his failure to engage with criticism of these earlier books or to alter his approach to these matters in any significant way, I do not propose to comment here on these chapters.

In Chapter 10 (pp 173-184) Leonardi discusses the supposed role of 'Koine Greek' (as in the New Testament) in the development of Hebrew phonology in the period in question (from 300 BCE to Late Antiquity); but his confused ideas about Greek and his extreme and unjustified view that the sounds of all ancient languages represent variants on the phonemes spelled with the 22 letters of the Hebrew abjad render much of this discussion incoherent.

Leonardi sums up in a brief Conclusion (pp 185-188) which predictably (and not unreasonably) adds little to his arguments. Once again, it cannot be said that overall he has made out a convincing case for his ideas.

There is occasional loose referencing (for example to an unattributed Youtube video, on p 36). And not all of the scholarly works cited in the body of the text appear in the Bibliography. These faults should be remedied in any new edition. But the book would need to be totally reworked if it were to have any real significance.

ANNOUNCEMENTS

OF INTEREST

SKEPTICISM, SCIENCE AND RATIONALITY (GENERAL)

Sense About Science

Keep visiting the Sense About Science website for new developments:

http://www.senseaboutscience.org/

The Nightingale Collaboration

Keep visiting the Nightingale Collaboration website. If you have not already done so, why not sign up for free delivery of their electronic newsletter?

> http://www.nightingalecollaboration.org/

Good Thinking

Make sure that you are on the Good Thinking's Newsletter email list: http://goodthinkingsociety.org/

Website of interest

It's time to promote the website 'Science-based Medicine' again, an Aladdin's cave of up-to-date articles on medical pseudoscience. Read, for example, the critique of a research paper on 'The influence of kinesiology tape colour on performance and corticomotor activity in healthy adults'. There is no influence, nor is there any effect due to wearing the tape at all. But why on earth should this research be done in the first place?

https://sciencebasedmedicine.org/

Spoof academic papers

'Over the past 12 months, three scholars—James Lindsay, Helen Pluckrose, and Peter Boghossianwrote 20 fake papers using fashionable jargon to argue for ridiculous conclusions, and tried to get them placed in high-profile journals in fields including gender studies, queer studies, and fat studies. Their success rate was remarkable: By the time they took their experiment public late on Tuesday, seven of their articles had been accepted for publication by ostensibly serious peer-reviewed journals. Seven more were still going through various stages of the review process. Only six had been rejected.'

http://tinyurl.com/ycx48cvo

Also see the authors' account at: http://tinyurl.com/yb3fqpay

Scientific literacy

'Improving scientific literacy requires examining both what people believe about scientific issues and why they hold those beliefs. We examined how people justified their agreement with statements regarding evolution, climate change, genetically modified foods, and vaccinations. Participants rated their level of agreement with statements reflecting the scientific consensus on these topics, then responded to open-ended questions asking them to justify their position and to generate challenges to their Responses to individual belief. difference measures allowed us to assess the relationship between participants' positions on these scientific issues and cognitive style, conspiracy ideation, religious service attendance, and political ideology. Oualitative analyses revealed inconsistent and topic-specific patterns of reasoning. Additionally, greater agreement with scientific conclusions was related to a greater predisposition towards analytical thinking and stronger self-reported political liberalism. These findings provide a next step for better understanding why some individuals reject science and for developing more effective means of improving science acceptance.'

http://tinyurl.com/y8g84u41 Also see: http://tinyurl.com/yd8w4h89

Pseudoscience in India

'Advocates for scientific rationalism in India are pushing back against a wave of conspiracies and superstitions being promoted as legitimate science.'

http://tinyurl.com/y9wjw3sw

MEDICINE

Clinical Research integrity

'Selective non-publication of the results of research distorts the published evidence base and is a threat to research integrity. In the case of clinical trials, non-publication of results means that information on the efficacy of new drugs or other medical interventions cannot be used. Falling short on 'clinical trials transparency' in this way presents risks to human health, contributes to research wastage and means that clinical decisions are made without access to all the available evidence. A range of UK and EU rules and guidelines are now in force to improve clinical trials transparency, in terms of tackling nonregistration, non-reporting and misreporting. However, despite these rules, around half of clinical trials are currently left unreported, clinical trial registration is not yet universal in the UK, and reported outcomes do not always align with the original study proposal.' From the report by the House of Commons Science and Technology Committee's Research Integrity: Clinical Trials Transparency, Tenth Report of Session 2017–19 at:

> http://tinyurl.com/y7qvmaz9 See also: http://tinyurl.com/y92898bc

And: UK universities have failed to post the results of 1,639 clinical trials onto registries, a report shows. Only 9% of completed trials have posted results. The remaining 91% of trials are in breach of World Health Organization standards.

http://tinyurl.com/ycdb2k2v

Case reports

'Take a guess where these headlines come from: "Parkinsonism can be "Therapeutic cured"; use of intermittent fasting for people with Type2 diabetes as an alternative to insulin". Although the language wouldn't be out of place in a supermarket tabloid, these headlines are actually from The BMJ Case Reports journal; more specifically, from a collection labelled "Myths Exploded". Bear in mind this journal has published over 15,000 case reports — what they dub "the single, largest repository of case reports in the world". So it's worth asking: can myths in medicine be "exploded" by case reports? And what does that even mean? Furthermore, is it responsible to suggest such anecdotes actually debunk myths, and then turn around and promote that erroneous notion to a much bigger audience via news releases?'

http://tinyurl.com/ycskswr8

Placebo

'What if the Placebo Effect isn't a Trick? New research is zeroing in on a biochemical basis for the placebo effect—possibly opening a Pandora's Box.'

http://tinyurl.com/y73ogevs

Stem cell treatment

'Stanford orthopedic surgeon Jason Dragoo, MD, is conducting 4 randomized clinical trials of the use of autologous stem cells to treat knee osteoarthritis: Interest in the trials seems high-nearly 100 people inquire about them daily, Dragoo says-but he recognizes that some patients might not volunteer for a study in which they could get a placebo instead of stem cells. "We're trying to do good science," he explained, but "the patients could easily say, 'why would I

take a risk of being in the control group? I could just go down the street and have it [stem cell therapy].""

'These days it seems like there's a stem cell clinic on almost every corner, especially in urban areas in Dragoo's home state of California and in Florida. They market treatments, typically using patients' adipose tissue, for arthritis and a host of other conditions. Despite the proliferation of these clinics, however, the science to support their claims isn't there yet, Dragoo said. Not even close.' At:

http://tinyurl.com/y7hrztur

Meanwhile: 'Harvard Medical School and Brigham and Women's Hospital have recommended that 31 papers from a former lab director be retracted from medical journals. The papers from the lab of Dr. Piero Anversa, who studied cardiac stem cells, "included falsified and/or fabricated data," according to a statement to Retraction Watch and STAT from the two institutions.'

http://tinyurl.com/y8xclzo8

Vaccination

'People who believe the myths spread by anti-vaccine campaigners "are absolutely wrong", England's top doctor has said. Prof Dame Sally Davies said the MMR vaccine was safe and had been given to millions of children worldwide but uptake was currently "not good enough". In England, 87% of children receive two doses but the target is 95%. The chief medical officer urged parents to get their children vaccinated and ignore media fake news". "social Her come comments on the 30th anniversary of the measles, mumps and rubella (MMR) vaccine being introduced in the UK.' At:

http://tinyurl.com/yc2pecpy

Also: 'Anti-vaccine misinformation by Dr W. Gifford-Jones in the Toronto Sun: Retracted (under pressure) but not forgotten'. At:

http://tinyurl.com/yc7v33nc

Meanwhile: 'Toddler dies of measles in Jerusalem, in first such incident in 15 years.' 'Measles has made an aggressive return this year in the Israeli population, with the largest spread — 753 known infections — recorded in Jerusalem's ultra-Orthodox community due to a refusal by some radical segments of the community to be vaccinated. The next-largest outbreak, in the ultra-Orthodox community in Safed, saw 213 recorded cases of the disease so far this year. That is followed by 89 in Petah Tikva and 84 in Tel Aviv.' At:

http://tinyurl.com/yamfezwc

And: 'Anti-vaccine advocates have swayed parents in New York to refuse immunizations for their kids, sparking two of the largest measles outbreaks in the state's recent history, according to local health officials.... What's notable here is that all of the cases are occurring among unvaccinated or Orthodox under-vaccinated Jews. mainly children. When asked why people are opting out of vaccines, the city health department said antivaccine propagandists are distributing misinformation in the community'. See:

http://tinyurl.com/y8znlarg

And now it's chicken pox: 'Vaccines prevent communicable diseases, and where there are pockets of people refusing vaccines, those diseases will come back with a vengeance. Just the latest episode is occurring in a private school in North Carolina, at the Asheville Waldorf School, which has a high rate of vaccine exemption (110 out of 152 students). The most recent reports puts the number of cases (of chicken pox) at 34. The chicken pox vaccine became available in the US in 1995.' At:

http://tinyurl.com/yac348d9

Also: 'A paid-for Facebook post by Stop Mandatory Vaccination, seen on 2 July 2018, featured the text "Parents, not only can any vaccine given at any age kill your child, but if this unthinkable tragedy does occur, doctors will dismiss it as 'Sudden Infant Death Syndrome' (SIDS). If you are on the fence about vaccinating, read this story and then join our Facebook group to talk with likeminded parents". The post also featured an image of a baby with his

eyes closed. Text In the image stated "Owen Matthew Stokes (Aug 18, 2017 - Oct 25, 2017). Text underneath the image stated:

"stopmandatoryvaccination.com -2-month old Dies 48 hours After 8 Vaccines: Owen's Mom."

The complainant (*to the Advertising Standards Authority*), who was the mother of a young baby, challenged whether:

1. The claim "Parents, not only can any vaccine given at any age kill your child" was misleading and could be substantiated; and

2. The ad was likely to cause undue distress.'

The ASA ruled that 'The ad must not appear again in its current form. We told Stop Mandatory Vaccination not to state or imply that all vaccinations could cause death to children unless they held sufficient evidence to demonstrate that. We also told them to ensure their marketing communications did not cause unjustifiable fear or distress'. At:

http://tinyurl.com/ybu87j2e

And: 'On August 8th, a colleague had posted a video on Instagram for National Immunization Month, and was bombarded with nasty comments and negative fake reviews from antivaccine activists. She reached out to our physician group on Facebook for backup. Many of us rushed to support her on the Instagram thread. The next day, I published this post about it, denouncing the harassment and intimidation tactics used by the antivaxxers. And suddenly, a gazillion nasty fake negative reviews about me have accumulated online. Eighty-seven at last count, mostly on Vitals.com, and more trickling in every day.In researching an OpEd about antivaccine activists, I interviewed doctors whose offices were overwhelmed by harassing phone calls, or who were threatened with physical harm against them, their staff, even their families.' At:

http://tinyurl.com/yd99g6fn

Also: 'A little more than a month after removing a highly criticized article that

claimed the measles-mumps-rubella (MMR) vaccine increased the risk of autism in African American boys, Translational Neurodegeneration has officially retracted the paper.' At:

> http://tinyurl.com/y9k6melv and

http://tinyurl.com/y9jfw3ev

Alternative medicine

And: 'Figures from 2005 reported that 12% of the English population used practitioner-led CAM. This 2015 survey has found that 16% of the general population had used practitioner-led CAM in the previous 12 months. Most CAM use is selfreferred, for musculoskeletal problems, particularly by women and those of higher SES, although some is GPendorsed and/or referred, for individuals of lower SES. Researchers, patients, and commissioners should collaborate research to the effectiveness and cost-effectiveness of CAM and consider its availability on the NHS.' At:

http://tinyurl.com/y77uylts

Also: The Charity Commission for England and Wales has recently drawn up guidelines for CAM organisations seeking charitable status.

When considering applications for registration as a charity from organisations using CAM to fulfil their purposes we need to identify:

- The purposes of the organisation what the purposes are and whether they fall within the descriptions of purposes in the Charities Act 2011
- Whether the purpose is for the public benefit. (This guidance deals only with consideration of the 'benefit' aspect of public benefit. Caseworkers will still need to consider whether the 'public' aspect has been demonstrated)

This means identifying what CAM is being used or promoted. In each case we take an evidence-based approach to identify:

• What the benefits are - is the proposed purpose capable of fulfilling the benefits claimed for it? In each case the evidence must be appropriate to the claim made.

• Any potential harm from use of the therapy and being satisfied that the harm does not outweigh the benefits. At:

http://tinyurl.com/yabky7zu

Detoxing

'In case you needed another reason to be skeptical of trendy diets and cleanses, YouTube medical channel Chubbyemu has shared a post describing the case of a 39-year-old American woman who ended up with permanent brain damage after attempting a soy sauce "colon cleanse" following an extreme crash diet.'

http://tinyurl.com/ycaotxks

Slapping therapy

A Sydney medical practice has been sued over the 'Slapping Therapy' death of diabetic boy. 'This particular quack claimed (and still do [sic]) that by slapping yourself, or by being slapped by someone else, you will unblock your chi (life force, energy, whatever) that flows through meridians - this is the central tenet of what is collectively known Traditional Chinese as Medicine (TCM). So, by slapping yourself you will be cured of whatever medical problem you might have. It is truly bizarre to think that there are actually people that fall for this trickery, and even more bizarre to think that some people are so into it, that they will subject a sick helpless child to this strange form of fatal abuse. So, the good news is that the slapping therapist, Hongchi Xiao, has been arrested and as far as I can tell, has been in and out of court over the last year or so...'

<u>http://tinyurl.com/y9klw8wy</u> See also:

http://tinyurl.com/y9durp2h

Gwyneth Paltrow

'Gwyneth Paltrow on Goop: We disagree with pseudoscience claims.' 'Gwyneth Paltrow has responded to criticism of her controversial lifestyle brand, Goop. The company agreed to pay \$145,000 (£112,000) last month for making unscientific claims about vaginal eggs that it was selling. She spoke to BBC Breakfast's Charlie

Stayt, as the company celebrates its 10th anniversary.' At:

http://tinyurl.com/y794e9oo

However: 'I reviewed all 161 of goop's wellness products for pseudoscience.' The majority of health products (90%) could not be supported by science. ... Conclusion: There is no evidence to support Gwyneth Paltrow's claim that goop is free of pseudoscience. In fact the opposite is true, goop is a classic example of pseudoscience profiteering. The bulk of their products are useless, but some could be harmful.' At:

http://tinyurl.com/y8l7p9h4

Homeopathy

'Editors at a respected scientific journal are reconsidering their decision to publish a study, which claims that a homeopathic dilution of poison oak can reduce pain in rats, after online critics pointed out that the study is rife with bogus, sloppy, and low-quality data.' At:

http://tinyurl.com/ybhc946x

And: 'This morning, I was alerted to the latest homeopathy shenanigan via the Forbes column of Dr. Steven Salzberg. (COI statement: I don't know Dr. Salzberg personally, but I follow his columns, and he is a faculty member at my institution-albeit in a discipline not directly related to mine.) At the heart of it is yet another bogstandard ridiculous "study" purporting effect" to show "clinical of homeopathy, despite the preponderant evidence that homeopathy does not work. What makes this instance special enough for me to take time out from my over-burdened work schedule? The fact that it was published in Scientific Reports from the - wait for it! - Nature Publishing Group. Yes, THAT Nature.' At:

http://tinyurl.com/y9yedetb

See also:

http://tinyurl.com/y7ed58gs

Meanwhile, From Good Thinking: 'The BBC's Executive Complaints Unit has upheld our complaint against a homeopathy phone-in on Liz Green's BBC Radio Leeds programme. Listeners were encouraged to call and text in to say whether homeopathy "has worked for them". Two of the three callers interviewed were homeopaths, who were given significant air time and claimed that homeopathy is effective to treat a wide range of conditions.' At:

http://tinyurl.com/y8q4js24

And: Homeopathy is no better than placebo for acute respiratory tract infections in children (Gosh! - Ed.). See the Cochran report at:

http://tinyurl.com/y7aey9d5

See also:

http://tinyurl.com/y726jjas

Furthermore: 'It turns out that Russia has its very own brand of bogus medicine: "release-active drugs," or RADs. Dozens of scientific articles have been published claiming that these substances can be used to treat or cure a remarkably broad range of illnesses ... If this sounds too good to be true, that's because it is. Thanks to a new report published in the journal Evidence-Based BMJ Medicine (provocatively titled "Drug discovery today: no molecules required") we now know that RADs aren't drugs at all, because they don't actually contain anything.'

http://tinyurl.com/yacpa280

Quack food sensitivity tests

'Feeling fat, itchy or bloated? Got tummy trouble? Want to help your hair or fix your skin? Could what you're eating be ailing you? That's certainly the sales pitch from companies behind food sensitivity tests. They're often advertised as a quick solution to a range of health issues, including by two of Canada's biggest labs - despite the fact the science behind these questionable tests has been discredited by medical groups around the world. And consumers, including Laura Chapnick, are buying in.' At:

http://tinyurl.com/yazxxx8n

See also: 'IgG food intolerance tests continue to mislead consumers into unnecessary dietary restrictions.' At: <u>http://tinyurl.com/ybaxvlku</u>

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Traditional Chinese Medicine

'The World Wide Fund for Nature has expressed its profound concern over China's announcement that it has legalized the use of tiger bone and rhino horn from captive bred animals by hospitals, and domestic trade in antique tiger and rhino products. 'WWF urgently calls on China to maintain the ban on tiger bone and rhino horn trade which has been so critical in conserving these iconic species. This should be expanded to cover trade in all tiger parts and products..... Both tiger bone and rhino horn were removed from the traditional Chinese medicine pharmacopeia in 1993, and the World Federation of Chinese Medicine Societies released a statement in 2010 urging members not to use tiger bone or any other parts from endangered species.'

http://tinyurl.com/ybatkc54

Acupuncture

Conclusions of 'Acupuncture for hypertension: Review' (Cochran Library): 'At present, there is no evidence for the sustained BP lowering effect of acupuncture that is required for the management of chronically elevated BP. The short-term effects of acupuncture are uncertain due to the very low quality of evidence. The larger effect shown in non-sham acupuncture controlled trials most likely reflects bias and is not a true effect.'

http://tinyurl.com/yaank54j

Deer placenta

Journalist Andrew Penman reports on a free seminar organised by 'a Singapore business called Riway International, which is said to be huge in the Far East. Riway makes one product, a tablet called Purtier Placenta, which contains apparently miraculous stem cells taken from the plancenta of New Zealand deer'. The author reminds us of 'Penman's First Law of Health Remedies: the more ailments that something claims to cure, the less likely it is to cure any of them.'

http://tinyurl.com/yawfmyte

Organic food

'One of the most enduring health fads of the last decades has been the organic movement. Maybe it's because we are all terrified of chemicals, or perhaps the marketing has just done its job; either way, virtually every wellness pitch these days comes with the same advice: "Eat organic. It's better for your health.".... The current noise in the media is over а large epidemiological study that looked at French adults and their eating habits. The researchers asked a group of 70,000 people what they ate, and then followed them up a number of years later..... They found that people who scored highest on their organic food eating scale, after controlling for potential confounding variables, were also less likely to get cancer. There were also protective effects on some specific cancers — postmenopausal breast and lymphoma — although this was not true for prostate, colorectal, skin, or premenopausal breast cancer. But overall — organics stopped people getting cancer! Good news for organic eaters, surely? Sadly, that's not the end of the story.'

http://tinyurl.com/ycby5127

Food supplements

'Jim McCants took green tea capsules in a drive to get healthy in middle age. His doctors now say they left him needing an urgent liver transplant.'

http://tinyurl.com/yavep9cm

Cancer screening

The NHS has announced a major overhaul of national cancer screening programmes in England. But: 'Despite his eminence, the previous National Cancer Director and Chief Inspector for the Care Quality Commission is the wrong person to lead another review of cancer screening. A previous review was accompanied by his announcement of the Age Extension Trial that has been criticized for being neither scientific nor ethical, and denying the six million women participants the safeguard of explicit informed consent. Health departments should not mark their own homework with exaggerated claims of success; the latest press release required correction after the Office of Statistics Regulation queried the 100-fold excessive claim that "hundreds of thousands of lives" have been saved – particularly objectionable given that the best evidence shows screening doesn't show differences in all-cause deaths.'

http://tinyurl.com/y7tvzwt9

Cancer quackery

'A neuroscientist who tried in vain to claw back part of her mother's dying gift of \$1.4 million to an unproven spiritual healer says she has been vindicated by a jury verdict that the breast cancer victim was exploited by a "socially dangerous cult". While Sarah McIntyre hopes the damning findings stop Universal Medicine (UM) founder Serge Benhavon from recruiting new followers, his group continues to charge breast cancer patients to attend "healing retreats" in a venue built with her mother's money. A leading Australian medical school also retains links to UM despite a Supreme Court jury in Sydney last month finding its leader is a "charlatan who makes fraudulent medical claims" and "swindles cancer patients".' At:

http://tinyurl.com/ydz9f4kc

Also: 'A fake doctor who promised a miracle cancer cure must pay \$105 million to a patient after losing a lawsuit. A jury found that "alternative medicine" practitioner Robert O. Young, who was previously convicted of practicing medicine without a license, promised to cure a former breast patient's cancer without traditional techniques. The patient, Dawn Kali, later sued him for fraud and negligence. During the five-day trial, Kali testified that Young promised to cure her breast cancer without surgery, chemotherapy or radiation. Kali said she continued to believe Young's theory that cleansing her blood and avoiding sugars would defeat the tumor, even as it grew. Kali testified that she paid thousands of dollars for massages, colonic therapy and baking soda infusions at Young's "Miracle Retreat Center" in Valley Center. But when cancer spread to her

bones in 2013, Kali told the jury she panicked and sought out a medical oncologist for traditional cancer treatments.'

http://tinyurl.com/yc8v954m and

http://tinyurl.com/yc6dsopf

Meanwhile: 'A pair of scheming sisters who raked in more than £2million selling fake diet pills and bogus treatments for cancer have been ordered to hand over £830,000. Helen Buchan, 52, and Carol Wiseman, 50, used their company Secret Diet Drops as a front for their dodgy goods. They used a website to claim that their "Secret Diet Drops" would assist weight loss and their "Apple Cider Vinegar" would kill cancer cells. The siblings, of Fraserburgh, Aberdeenshire, set up the company in 2011 and each made a six-figure sum in the first two years of trading.' At:

http://tinyurl.com/yaljhqs2

And in Canada: 'Stanley Nowak has become the first person convicted under the Food and Drug Act for marketing, packaging and selling the so-called Miracle Mineral Solution, a controversial tonic that's been marketed as a cure for a variety of illnesses, diseases and conditions, including AIDS, cancer and autism.Health Canada has been warning about the dangers of the so-called Miracle Mineral Solution for years. MMS contains sodium chlorite, a chemical used mainly as a textile bleaching agent and disinfectant. Health Canada has said ingesting it can health cause serious problems. including poisoning, kidney failure and harm to red blood cells. The solution has been promoted by the Dominican Republic-based Genesis II Church, which lists MMS as one of its sacraments and claims that when sodium chlorite is diluted with water it can cure many of the world's diseases.'

http://tinyurl.com/y7cmdres

Another mobile phone scare

'Mobile phones are in the news following the release of results from a US research programme that tested if a certain type of radiation given off by

phones can cause cancer. As a result, headlines are claiming that there's now "clear evidence" linking mobile phones to cancer. What the headlines fail to mention is that the studies these news stories are based on were carried out in rats. Dig a little deeper in to the news reports and you will see that there is mention of the use of rats in the studies. But some people won't look beyond the headlines. The studies also used radiation doses far higher than what we'd experience in the realworld. Together, this means that even with the latest findings, there's still no convincing evidence that mobile phones cause cancer in people.'

http://tinyurl.com/y8w99otc

Chiropractic

'Neither the ASA (Advertising Standards Authority) nor CAP (Committees of Advertising Practice) wants to be an (unwarranted) pain in the neck for Chiropractors. So, after a two year ASA/CAP project on Chiropractic, a new piece of ASA Guidance was launched last year with the help of the General Chiropractic Council The (GCC). Guidance focussed on new evidence submitted by industry bodies in relation to sciatica, whiplash and sports injuries and considered the likely acceptability of claims to treat babies, children and pregnant women.' At:

http://tinyurl.com/yakggrke

And: 'When Christopher Lehmann of Innisfil, Ontario., was nine years old, his mother, Sandy Hart-Lehmann, took him to a chiropractor who claimed treatments could 'correct' his autism. The family spent at least \$5,000 before Christopher called a halt to the treatments'. 'Honestly, I felt I was – I hate to say it – duped' Ms. Hart-Lehmann says.

'For more than a decade, Ontario's regulator has been steered by "vitalists" who promote unscientific treatments for virtually any disease. Now a growing faction is urging change.'

http://tinyurl.com/ybz258ql

'Leaky brain syndrome'

'First there was leaky gut; now there's leaky brain. These questionable concepts are being promoted by practitioners of so-called "functional medicine." While there ... are documented defects in the BBB (blood-brain barrier) associated with some diseases, the concept of "leaky brain syndrome" appears to be a bogus diagnosis created by the functional medicine industry. It attributes all manner of symptoms to a leaky BBB, and claims a leaky brain is the cause of chronic neurodegenerative diseases. These ideas are not supported by acceptable scientific evidence: they rely on questionable evidence from animal and in vitro studies. speculations about basic science, and a lot of imagination. "Leaky brain" gives functional medicine doctors the excuse to read unwarranted conclusions into non-standard lab tests and to play trialand-error with patients on a long-term basis, experimenting with diet, lifestyle changes, and dietary supplements.'

http://tinyurl.com/yac4pgow

Healer's unsuccessful defamation case

'A wealthy NSW spiritual healer has suffered a significant defeat in his defamation case against a blogger after a jury found many of her posts were true, including that he's the leader of a socially harmful cult. Former tennis coach Serge Benhayon, who claimed to be the reincarnation of Leonardo da Vinci, sued ex-acupuncturist Esther Mary Rockett in the NSW Supreme Court over her 2014 blog and tweets. But the four-person jury on Monday completed answers to 58 pages of questions, primarily in Ms Rockett's favour and against Mr Benhayon, the founder of Universal Medicine (UM), based near Lismore in northern NSW.'

http://tinyurl.com/ychnrrhw

POLITICS AND SOCIAL POLICY

Transgender victim statistics

'Some commentators have described an "epidemic of violence against trans people". Let's take a look at the statistics Based on the unofficial figures we have available, it looks like an average of one trans person is murdered each year in the UK. The limited data we're working with suggests that in the UK at least, the "trans murder rate" is lower than the UK average. But - again based on unofficial figures - it appears that trans people are more likely to experience other violent crimes, for example domestic abuse. All of this is a best guess, not a firm conclusion: we don't yet have a robust estimate of the total trans population of the UK, and the number of recorded trans murder victims is so small that it would only take one or two more cases every year for the "trans murder rate" to double or triple. The Office for National Statistics say they are working on creating a standard process for recording violence against trans people. Until we have those official statistics, we should handle the data we do have with care. Anyone that tells you this is clear-cut - on either side of this often vexed debate - is wrong.'

EDUCATION

Steiner schools

'Urgent inspections of Steiner schools have been ordered by the Education Secretary, following an investigation by *The Telegraph*. Damain Hinds has written to the chief inspector, Amanda Spielman, demanding that Steiner schools - both private and state funded - are subjected to "additional scrutiny" by Ofsted. The move follows mounting concern from Ofsted about child safety in some Steiner institutions, with two schools threatened with closure by ministers after inspectors discovered serious failures in safeguarding.' At:

http://tinyurl.com/ybmzsxpj

And: Verdict of Ofsted report on Steiner Academy Exeter: 'In accordance with section 44(1) of the Education Act 2005, Her Majesty's Chief Inspector is of the opinion that this school requires special measures because it is failing to give its pupils an acceptable standard of education and the persons responsible for leading, managing or governing the school are not demonstrating the capacity to secure the necessary improvement in the school.'

http://tinyurl.com/ydz59c2x

RELIGION AND CULTS

Scientology

'This week I (*Chris Shelton*) interview Jesse Prince, former Scientologist and Sea Org member as well as the author of The Expert Witness, a book I reviewed a few weeks ago. Jesse worked at the highest levels of Scientology during its most turbulent and defining time directly under David Miscavige and he has some amazing stories to tell.'

http://tinyurl.com/ycvf3rs7

(Un)intelligent design

'In his new book Human Errors: A Panorama of Our Glitches, from Pointless Bones to Broken Genes, Nathan Lents, a professor of biology at John Jav College, CUNY, has demonstrated that the human body can't possibly be considered the product of an intelligent designer. Rather, its flaws tell the story of evolution. No intelligent designer would have put our retinas in backwards, left us with the stump of a tail, deprived us of the ability to make the vitamins and nutrients we need, or sent our recurrent laryngeal nerve on such a circuitous path. No intelligent would have filled our designer genomes with genes that don't work and viral carcasses of past infections. These and our many other defects are explained only by the quirks of evolution.'

http://tinyurl.com/y89ph3r2

CONSPIRACY THEORIES

Kennedy assassination

'Given what we know about the world, what would we expect to find in the wake of the assassination had Oswald acted alone? We would expect to find a convergence of evidence pointing to his guilt and a paucity of evidence pointing elsewhere. And since that is exactly what we do find, what is the more parsimonious explanation? That all the evidence implicating Lee Harvey Oswald was doctored or planted? And that all witnesses were bought off and intimidated or killed? And that a plot and cover-up requiring hundreds of conspirators never yielded a single confession? And that every other shooter in Dealey Plaza simply vanished into thin air? Or would it be more reasonable to conclude that the theorists conspiracy are simply wrong?'

http://tinyurl.com/ycrvlgwg

MISCELLANEOUS UNUSUAL CLAIMS

UFOs

'Several commercials airline pilots reported a series of fast-moving unidentified objects in the skies off the west coast of Ireland last week in an incident now under investigation. One pilot said the object or objects were traveling at "astronomical" speeds of at least Mach 2, or twice the speed of sound.'

http://tinyurl.com/yczz8704

Atlantis

'In this video, I am going to connect the dots on the exact words that Plato used to describe Atlantis, its location, and the geographical land features that surround it, which were recorded in Plato's dialogues, the Critias and Timaeus. And the details that Plato shared of Atlantis, which I'm about to share with you in side by side comparison, will show you that the Richat Structure located in Mauritania Africa, also commonly referred to as the Eye of the Sahara, or the Eye of Africa...is the most likely location for the lost city of Atlantis.'

http://tinyurl.com/y8aom6fm

All well and good, but see 'No – Atlantis has not been discovered in North Africa' at:

http://tinyurl.com/yd7hnrr9

UPCOMING EVENTS

EUROPEAN-WIDE EVENTS

The ECSO website has a calendar of events of skeptical interest taking place all over Europe, including the UK. See https://www.ecso.org/european-events/ (or http://theesp.eu/events in europe).

18TH EUROPEAN SKEPTICS CONGRESS

This will take place in 2019 in Ghent and will be hosted by the Belgian and Dutch skeptical societies (see earlier advert). The website will be up and running soon.

THE ANOMALISTIC **PSYCHOLOGY RESEARCH UNIT AT GOLDSMITH'S COLLEGE LONDON**

Chris French has organised an exciting programme of seminars for this academic year. Visit:

http://www.gold.ac.uk/apru/speakers/

Also of interest (and open to the public) is the programme of seminars

organised by Goldsmiths Psychology Department which can be found at: http://www.gold.ac.uk/psychology/dept -seminar-series/

SKEPTICS IN THE PUB

Choose the venue you are looking for to access the upcoming events. http://tinyurl.com/lwohd4x

HUMANISTS UK

Humanists UK is holding its annual convention in Leicester this year. The dates are Friday June 21st, 7:00 pm to Sunday June 23rd, 4:00 pm and the venue is Athena, Queen Street. Leicester, LE1 1QD. For further details and tickets go to:

https://humanism.org.uk/events/ convention2019/

CONWAY HALL LECTURES LONDON

25 Red Lion Square, London

WC1R 4RL

http://conwayhall.org.uk/talks-lectures

CENTRE FOR INQUIRY UK

For details of upcoming events: http://centreforinquiry.org.uk/

LONDON FORTEAN SOCIETY

For details of meetings: http://forteanlondon.blogspot.co.uk/

COUNCIL OF EX-MUSLIMS OF BRITAIN

For details of meetings:

http://tinyurl.com/y8s6od5r

SCIENCE EVENTS IN LONDON

Eventbrite lists a series of scientific meetings in London (some free, some not-so-free). At:

http://tinyurl.com/m8374q9

'Funzing' organises evening talks at social venues in London, some being of interest to skeptics. See:

http://uk.funzing.com/

LOGIC AND INTUITION: ANSWERS

Answer

Let *p* be any prime number ≥ 5 .

 $p^2 - 1 = (p+1)(p-1)$

Any prime number ≥ 5 is not divisible by 2.

Therefore, both (p+1) and (p-1)must both be divisible by 2.

Now, alternate even numbers are divisible by 4 (e.g. 4, 8, 16, etc.).

Therefore either (p+1) or (p-1), but not both, is divisible by 4.

Therefore (p+1)(p-1) must be divisible by $2 \times 4 = 8$.

Any prime number ≥ 5 is not divisible by 3.

Therefore, either (p + 1) or (p - 1), but not both, must be divisible by 3.

Therefore (p+1)(p-1) must be divisible by $8 \times 3 = 24$.

Well done if you solved this – but only if you are not a trained mathematician!

About ASKE

Founded in 1997, ASKE is an association of people from all walks of life who wish to promote rational thinking and enquiry, particularly concerning unusual phenomena, and who are opposed to the proliferation and misuse of irrational and unscientific ideas and practices. This is our quarterly magazine and newsletter. To find out more, visit our website (address below).

If you share our ideas and concerns why not join ASKE for just £10 a year? You can subscribe on our website, write to us at the address below, or email:

m.heap@sheffield.ac.uk

email: <u>aske1@talktalk.net;</u> website: <<u>http://www.aske-skeptics.org.uk</u>>