

# THE SKEPTICAL INTELLIGENCER

The Quarterly Magazine of ASKE  
THE ASSOCIATION FOR SKEPTICAL ENQUIRY  
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*Incorporating the Skeptical Adversaria: the ASKE Newsletter*

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*Edited by Michael Heap*

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### 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.



## FROM THE ASKE CHAIR

### Michael Heap

Hardly a week goes by without a media announcement about a ‘major breakthrough’ in our understanding of some aspect of human behaviour or experience such as a psychological disorder, difficulty or predisposition, and the promise that the findings will bring hope and relief to people adversely affected by such.

Investigations that seem to be amongst the most frequently rewarded with this privilege are those that involve putting people into brain-scanning machines or analysing their genes. In December 2019 a paper appeared in the journal *Molecular Psychiatry* (note 1) that reviewed 131 neuroimaging studies published over the last 20 years on people exhibiting suicidal thoughts and impulses. Their conclusions were as follows:

*Reviewed literature suggests that impairments in medial and lateral VPFC (ventral prefrontal cortex) regions and their connections may be important in the excessive negative and blunted positive internal states that can stimulate suicidal ideation, and that impairments in a DPFC (dorsal prefrontal cortex) and inferior frontal gyrus (IFG) system may be important in suicide attempt behaviors. A combination of VPFC and DPFC system disturbances may lead to very high risk circumstances in which suicidal ideation is converted to lethal actions via decreased top-down inhibition of behavior and/or maladaptive, inflexible decision-making and planning. The dorsal anterior cingulate cortex and insula may play important roles in switching between these VPFC and DPFC systems, which may contribute to the transition from suicide thoughts to behaviors.*

Whenever I read this kind of material I ask myself, ‘Who is benefiting from all of this?’ A cynic would reply, ‘The people who are

carrying out the research’ and I confess often to being unable to refute this.

In September 2019 the Office of National Statistics released a report on the incidence of suicide in the UK for 2018 (note 2), revealing a significant surge. The reasons for this are not yet known but it is largely driven by an increase among men who continue to be most at risk. In addition:

*In recent years, there have also been increases in the rate among young adults, with females under 25 reaching the highest rate on record for their age group.*

The rate for males was 17.2 deaths per 100,000 and for females 5.4 per 100,000.

The higher suicide rate for males is a global phenomenon (note 3). In other words, being male is a risk factor for suicide. More important is a previous suicide attempt (note 4). A third factor is mental illness and a fourth, alcohol and drug misuse (note 5). Older people are more suicide prone (*op cit*). If we are speaking globally then a rarely-mentioned, but highly significant, risk factor is the country where you live. A person living in Russia, for example, is 13 times more likely to commit suicide than someone living in Jamaica (note 3) though of course this factor is not independent of others.

Accessibility to a means of self-killing is also relevant. Through the 1960s and into the 1970s, following the changeover to CO-free domestic gas, there was an inevitable decline in suicides by this means for which death by other methods did fully compensate (note 6). In certain areas of the world the banning of a number of pesticides has also led to overall reductions in the suicide rate. Presumably the lack of an immediate method of death by someone in an acute suicidal state allows time for their suicidal impulse to ease. In the UK we are fortunate that ready access to a firearm is unusual for most people, death by hanging being

the most frequent method for males and poisoning for females (note 2). Also in the UK, and very likely elsewhere, serious illness and disability, hardship, deprivation and loneliness (*cf* Durkheim, 1895, note 7), lack of or loss of employment and livelihood, trauma, bereavement, being regularly bullied or preyed upon, and other misfortunes all predispose people to end their lives (note 8).

‘Any man’s (or woman’s or child’s) death diminishes me’. It is a heart-rending tragedy for both the person concerned and those whom they leave behind. What can we do to reduce the number of people who take the ultimate ‘way out’. According to the authors of the earlier-mentioned paper, one answer is to spend more money investigating the brain circuitry of people who are at risk of ending their lives:

*Identifying brain alterations that contribute to suicidal thoughts and behaviors (STBs) are important to develop more targeted and effective strategies to prevent suicide.*

According to *me* this is yet another example of what GB Shaw in his play *Doctor’s Dilemma* called ‘conspiracies against the laity’. In my view, money intended to mitigate the tragedy of people taking their own lives that is used to further the careers of university academics and the profits of high-tech manufacturers is money misappropriated.

Actually, for most countries suicide rates fell in the period 1990 to 2017 (note 5). And compared with other countries, the UK’s are on the low side, being 109<sup>th</sup> in a for 183 countries in 2016 (note 3). In fact, before the 2018 upsurge there had been a continuous decline from 2013 and a declining tendency since the early 1980s. If these promising trends are due, if only in part, to direct human action then some people are doing something right. So let’s get back on track in 2020.

The suicide prevention literature speaks a great deal about the need for social support in all its forms for those who come to think that death is the only way of alleviating their misery and despair. Statutory and charitable bodies aside, everyone can play their part by reaching out to anyone in this darkest of places—family, friends,

neighbours and people we happen to meet—and help them feel wanted, valued and supported. But please, please don't ask them to go inside a brain-scanning machine.

#### Notes

1. <https://tinyurl.com/tpr48st>
2. <https://tinyurl.com/wkp2v44>
3. <https://tinyurl.com/cej9tl>

4. <https://tinyurl.com/t3qpd6g>
5. <https://ourworldindata.org/suicide>
6. <https://tinyurl.com/thlb96p>
7. Durkheim, Émile (1897) *Suicide: A Study in Sociology*. Trans. Spaulding, John A. New York: The Free Press, 1979.
8. <https://tinyurl.com/qnt9els> .



## LOGIC AND INTUITION

### The two walkers

Two people are standing on the coast of a hilly island at roughly opposite sides. They have to walk (not necessarily in a straight line) until they

meet somewhere inland. They start at sea level and are unable to go below sea level throughout the walk. Is it possible for them in theory to do the walk while always being at the same

altitude as each other? (Note the emphasis on 'in theory'.)

*Answer on page 20.*



## THE EUROPEAN SCENE

### European Council for Skeptics Organisations

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

<http://theesp.eu/>

'This week we celebrate our 200th episode and we continue our journey into our fifth year!

'We re-unite with our first ever guest, Gábor Hraskó (president of the Hungarian Skeptics) to philosophize a

little about Skepticism and what has changed over time. And throughout the show we hear fantastic congratulation greetings from dear friends from across the world!

'We go on to bring up the eradication of Smallpox and Pontus Pokes the Pope to examine a potential \$4 billion threat to the Catholic Church. And a Catholic Minecraft server sounds intriguing as well...

'In the news we talk about reliable climate change models, Etiopathy, the measles epidemic both globally and in Samoa. Polio is still a threat to consider and we revisit the topic of Assisted Death and the Manifesto Against Pseudoscientific Therapies.

'Finally, András does his very best Master Yoda impression to celebrate that we have lasted this far!

'Enjoy!'

You'll also find a comprehensive calendar of event of skeptical interest taking place all over Europe at:

[http://theesp.eu/events\\_in\\_europe](http://theesp.eu/events_in_europe)

### Pseudotherapies in Europe

From Fernando Cervera Rodríguez, of the Association to Protect the Sick from Pseudoscientific Therapies ([www.apetp.com](http://www.apetp.com)).

You are receiving this message because you recently signed the European Manifesto against Pseudotherapies at:

<https://pseudoscience-manifesto.apetp.com/>

'We currently have approximately some thousands signatories from 37 different countries (mostly doctors and scientists). But in United Kingdom we believe that you can still get more signatures .... If we succeed, we can generate pressure to change the laws that protect pseudotherapies, as we did in Spain. Can we stand by you?'

### The Skeptik

*The Skeptic* is the quarterly periodical of the Slovak Society of Skeptics and is available in English online (see also 'Of Interest', page 16, first section).

<http://www.spolocnostskeptikov.sk/en/node/2>



## MEDICINE ON THE FRINGE

Michael Heap

### Traditional Chinese Medicine

It is not only the existence of the rhinoceros that is threatened by consumers of Traditional Chinese Medicine (TCM; *note 1*). In November 2019 the charity The Donkey Sanctuary issued a report (*note 2*) on how demand by TCM users for donkey skins has led to a collapse of donkey populations in countries across the world. It also reports evidence that increasing numbers of donkeys are being bred, reared and slaughtered in squalid conditions to supply this growing market. Donkey skins are used to make ejiao, a traditional Chinese remedy believed by some to have medicinal properties. According to the report:

*It is estimated that the ejiao industry currently requires approximately 4.8 million donkey skins annually. With China's donkey herd reducing from 11 million in 1992 to just 2.6 million currently, the ejiao industry has had to source donkey skins from around the world, placing unprecedented pressure on donkey populations globally.*

In October 2019 I was touring China with a small group of medical professionals and in addition to the usual attractions we attended talks on TCM and visited a number of hospitals where we had the opportunity of witnessing patients being treated as well as receiving treatment ourselves. We were informed that the four most common types of TCM available are herbal remedies, massage, acupuncture and cupping. Exercise and diet are also important. Both TCM and modern medicine were provided to patients at the hospitals and clinics we visited and were funded partly by the state and partly by medical insurance or private means. TCM tended to be prescribed for more common complaints such as infections and pain.

The foundation of TCM is the concept of a vital energy or life force *chi* that is presumed to flow throughout the body along channels called *meridians*. TCM aims at restoring the healthy and harmonious flow of this energy.



Figure 1

Figure 1 is a photograph of a patient being treated for either abdominal or back pain (I can't recall which now) using heated ginger. The ginger, I was told, is resting on bare skin and is heated by the volcano-shaped piles of burning herbs (moxa).



Figure 2

Figure 2 shows a demonstration of cupping on a volunteer with mild shoulder pain. The air in the dome-shaped cup is heated by quickly inserting a flame and immediately withdrawing it and placing the cup over the targeted meridian. Four cups (two on each side) were used in this demonstration. The air in the cups contracts, drawing in the skin which turns red. Two days later the volunteer still had the deep red discs on her back.



Figure 3

It is clear that TCM, most notably herbal medicine, is a huge industry in China. In Chengdu we visited one of Asia's largest herb markets. It was vast and one could not help imagining that virtually every available plant was on sale in dried form, fungi being particularly popular.



Figure 4

Some animal matter was also on sale, including dried centipede and (Figure 3) snakes; turtle shells (Figure 4, in the cylindrical containers); and bits of hedgehog. Dried deer penises, presumably for boosting or restoring potency in men, were also on display. Figure 5 shows crates of dried seahorses, touted as aphrodisiacs. Coincidentally, not long before embarking on my tour I was reading that seahorses are at risk of extinction due to poaching and overfishing to meet the growing demand of TCM consumers (*note 3*). These examples represent only a tiny part of the full scale of animal cruelty alleged to be perpetrated in the service of TCM (*note 4*).





Figure 5

TCM is embedded in Chinese history, its cultural traditions and way of life, and the Chinese philosophy of

harmonious living. Maintaining good health and fitness into old age is a priority; it is not unusual to see people taking time out to exercise in the open by dancing or performing tai chi, manually stimulating ‘acupressure points’, or simply executing stretching poses while hanging around. This is particularly so with older people; one morning we visited a park near our hotel to join a tai chi group of mainly elderly women, and were put to shame by our clumsy efforts to follow the movements of their guide, much to the good-natured amusement of some local men who gathered to watch us.

Although, with increasing prosperity and the mass movement of people from rural to urban areas, younger generations are becoming less likely to follow the traditions of their forebears, it seems to me unlikely that there will be any weakening of the market for herbal medicines. Indeed, it is the greater affluence of the Chinese people that is behind the increasing demand.

Notes

- 1. <https://tinyurl.com/yat9zgzi>
- 2. <https://tinyurl.com/scajvqo>
- 3. <https://tinyurl.com/yxa3hvt>
- 4. <https://tinyurl.com/rtpemgh>



## LANGUAGE ON THE FRINGE

Mark Newbrook

### Riders on recent entries and other items

#### Review of two books by the Ethiopian writer Legesse Allyn. In: *The Skeptical Intelligencer*, 20:4 (2017)

In mid-2019, Allyn contacted me, seeking discussion arising from my review. It became clear that I had slightly oversimplified the issue of the status of the Ge’ez language in early Ethiopia; but apart from this I found in our correspondence no reason to alter my views on Allyn’s highly implausible general claims regarding (a) Egyptian hieroglyphs, which are supposedly to be read as representing the Ethiopian languages Amharic and Tigrinya, and (b) a wide range of words in various modern languages which are allegedly derived from these Ethiopian languages. On all of this, see the 2017 review.

Allyn did have more to say about Ancient Greek, starting with the Rosetta Stone. Bizarrely, he believes that ‘written Greek is the ancient Egyptian hieroglyphic language’ (that is to say, Amharic or Tigrinya, not Egyptian as normally conceived), that the Greek alphabet is immediately derived from hieroglyph-parts, and that

the native spoken language (Greek as normally conceived) that would be heard on the streets of 5th-Century BCE Greek cities would thus have been altogether different from written ‘Greek’. If this had been so, there would necessarily have been a complex sociolinguistic relationship between the two languages, of the kind which linguists call *diglossia*: separate languages (or very clearly separate dialects) used in complementary functions in the same society.

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*Greek spelling clearly represents the sounds (and meanings) of spoken Greek as known from a range of bodies of evidence.*

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But there is no reference in the vast corpus of Ancient Greek literature to such a situation. Neither is there any trace of hieroglyphic writing in classical or pre-classical Greece, or any evidence of extensive contact between classical Greece and Egypt (by then a fading power and indeed for long periods under Persian rule) until the time of ‘Ptolemaic’ Egypt (the post-

classical/‘Hellenistic’ kingdom which arose after the conquests of Alexander and eventually became a Roman province when Augustus defeated Cleopatra). Furthermore, there are very few Greek words which might be derived from Egyptian or (still fewer) from Ethiopian languages. As far as the Greek alphabet is concerned, it has a clear source in the Phoenician abjad (consonantal alphabet). And Greek spelling clearly represents the sounds (and meanings) of spoken Greek as known from a range of bodies of evidence.

Crucially in context, Allyn also fails to offer any reasonable account of Coptic, the late-Egyptian language written in a Greek-derived alphabet. In addition, he cites even words found only in Modern Greek – such as the word *pharma* (‘farm’), an obvious loan from English and acknowledged as such in all dictionaries – as relevant to his derivation of the Ancient Greek vocabulary from Amharic/Tigrinya.

Like David Leonardi, Allyn ignores the fact that Ancient Greek is a very well-known language: part of the unbroken 3,000-year history of the Greek language, the vehicle of an enormous literature and the subject of

intense study since classical times. There is no scope for extensive re-writing of its history. Here as elsewhere, his theories are driven in large part by his determination to find a) hieroglyphs or hieroglyph-parts and b) Amharic/Tigrinya wherever he can. But, as he admits, he is not a linguist; and readers should not be taken in by his self-confidence.

**The Newton Stone. In *The Skeptical Intelligencer*, 22:3 (2019)**

I refer in the piece cited to the anthropologist Anthony Jackson's view about the Stone. William Arthur Cummins supported Jackson's ideas in his 1999 book *The Picts and their Symbols*.

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*He underestimates the speed at which languages (and cultures) can differentiate as they diffuse across the world.*

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Pictish, which I have discussed more than once in this forum, surfaces at intervals as 'flavour of the month' in Scottish antiquarian circles. Now the controversial University of Edinburgh chemical engineering lecturer Martin Sweatman has extended his earlier theories and has allegedly 'decoded' a system of Pictish symbols and revealed its link with other symbol systems used by ancient civilisations across the world'; the wording is from a School of Engineering post of 15/7/19 (*notes 1 & 2*). Like Gerard Cheshire on the Voynich Manuscript (recently discussed by me here), Sweatman is not professionally qualified in the relevant disciplines, and it may be that his academic employer will think again, as did Cheshire's, as scholarly criticism gathers. Sweatman's 2018/2019 book, *Prehistory Decoded*, follows Graham Hancock, Gordon White (whose book I reviewed here in 2016), Laird Scranton (whose book on Skara Brae I reviewed here in 2018) and other such non-mainstream archaeologists in urging the reality of a 'lost civilisation' and specifically in

attributing vast significance to the admittedly impressive early site at Göbekli Tepe in Turkey.

The Pictish symbols in question here are not the alphabetic signs which represent the Pictish language, and the other symbol-systems involved appear to be non-linguistic as well. There is thus a sense in which this matter lies outside my own professional ambit; but see below.

Most of the online (largely positive) reviews of Sweatman's book are by enthusiasts. But for a skeptical, professional viewpoint, see the comments of the archaeologist Rebecca Bradley (*note 3*). Bradley, who is well-informed about language matters, includes a discussion of her exchange with Sweatman on the (relatively minor) linguistic aspects of his claims. She points out that in developing his account of cultural diversification he underestimates the speed at which languages (and cultures) can differentiate as they diffuse across the world. She herself suggests that there was probably one single proto-language at the time of the exodus of *Homo sapiens* from Africa, which is not universally accepted; but her general point stands even if this specific point is disputed. In particular, the Indo-European language 'family', to which Sweatman prominently refers, has differentiated to the huge extent that it has in less than 7,000 years. And some of the specific languages which he invokes in this context are not even members of this 'family'. Linguistics, at any rate, does not support his thesis.

**J is for Jesus. In *The Skeptical Intelligencer*, 22:2 (2019)**

The issue of the adoption of 'foreign' spellings for personal and place-names is in fact quite complex, and the outcomes are not always either planned or transparently reasonable. Why do we (a) now use local forms in calling Bombay *Mumbai* and Calcutta *Kolkata*, (b) still fluctuate between *Burma* and *Myanmar* but (c) show no sign of re-labelling Munich as *München* (in either English or French)? (It is not only a matter for English-

speakers; for example, there has been no movement from *Mailand* to *Milan/Milano* in German, either!) Would readers like to offer explanations? Is the 'awkward' Umlaut a factor in the case of Munich (and Cologne)? Note also 'hyper-foreignisms' such as [mju:nix] for *Munich*, with a pseudo-German 'guttural' final consonant, and [berʒɪŋ] for *Bei-Jing*, with [ʒ] (not found morpheme-initially in English), for the native [beidʒɪŋ] with [dʒ], wholly familiar in English words such as *joy* or *gem*.

**Logic and reasoning on the fringe?**

Non-mainstream writers often vaunt their supposed superior grasp of logic and reasoning, claiming to have exposed flaws which professional scholars have allowed to vitiate their own theories either through bias or through sheer lack of intelligence. But in many cases the fringers themselves propose theories riddled with errors in logic and reasoning.

One such case which I encountered in correspondence involved the late non-mainstream historian Cyclone Covey, a man of vast erudition but with a limited grasp of argumentation. He refused to acknowledge the importance of statistics when dealing with patently stochastic phenomena; he urged me to apply empirical tests to proposals such as his friend John J. White's 'Earth Mother Sacred Language' which are so self-indulgent with linguistic equations as to render disproof impossible (almost any sound or morpheme in any known language can supposedly be derived from a given sound/morpheme in EMSL); and he once argued seriously for deep-time links between Ancient Greek and Lakota (Sioux) on the basis of one Homeric Greek sentence which he identified as having Object-Verb-Subject word-order, as is common in Lakota. But there are 6,000 languages, and there are obviously only six possible word-orders on this parameter of linguistic variation; and although OVS is the least common of the six it

is still found in many clearly unrelated languages around the world. What was that about statistics?! Furthermore, OVS is by no means the most common word-order in Greek; SVO (as in English) is usual. In poetry, however, Greek word-order is very flexible (though not as flexible as in Latin) and varies to suit the requirements of metre (hexameter in Homeric Greek); hence occasional cases of OVS or other atypical orderings. And, finally, the Greek sentence in question does not actually display OVS word-order! It is *mēnin aeide, thea* (the first three words of the *Iliad*), and *thea* here is a vocative form, not a nominative (Subject); the verb *aeide* is an imperative (command) addressed to the muse of poetry. The sentence means, literally, ‘anger sing, goddess!’ (‘Goddess, sing of the anger [of Achilles]’). No Subject is present. Covey knew Greek, and here he was being disingenuously tendentious, to say the least! He did not even acknowledge my correction.

A second case: in ‘A Big Bang Never Happened’, in *Nexus* (October/November 2018) (pp 47-53), David Rowland, described as a self-educated polymath, states repeatedly that the Big Bang Theory requires that the Universe be finite and that if the BBT is itself wrong (as he holds it is) the Universe must therefore be infinite; ‘there is no third possibility’. Anyone with Logic 101 under their belt will notice the fallacy here at once. There is at least one further possibility, namely that the BBT is wrong but the Universe is finite for some other reason. Rowland’s conclusion is thus invalid. Elsewhere in his article, Rowland argues that the BBT, unlike most scientific theories, must be **proven** correct and cannot be provisionally accepted as the best theory currently available. He does not explain why the BBT has this special status, and in the same breath he states, inconsistently, that the burden of proof is **always** on ‘the positive’. Etc., etc. Rowland’s poor reasoning seriously reduces any confidence non-specialists might have in his supposed wide-ranging

expertise! The journal editor missed or ignored these fallacies.

A third instance involved a letter published in *Skeptical Inquirer*, March/April, 2019, p 63. The correspondent (one James Adams) claimed that a writer in the journal who had argued that free will is an illusion was obviously in denial of his true beliefs, since anyone who really did not believe in free will would not take any actions at all. This oversimplifies what is in fact quite a complex issue; but things then get worse! Adams makes a valid but seemingly irrelevant point that consciousness is required if illusions are to arise (free will is surely not required for consciousness to exist), and goes on to maintain that the concept of self implies free will – which is clearly false. And he concludes by asserting that even if free will is an illusion it still qualifies as free will (eh?) and that denial of free will is a ‘cop out’. I admit to being surprised that *Skeptical Inquirer* published this utterly incoherent letter without a rebuttal!

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*David Rowland ... states repeatedly that the Big Bang Theory requires that the Universe be finite and that if the BBT is itself wrong (as he holds it is) the Universe must therefore be infinite.*

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Returning to Cyclone Covey: another of his reasoning errors involved his view that the fringe ‘epigraphist’ & historical linguist Barry Fell’s outstanding talent as an adult foreign-language-learner qualified him to make judgments in the field of general and historical linguistics. Now some adult foreign-language-learners do achieve polyglot status partly through a grasp of linguistics (it obviously helps in coming to terms with novel sounds, structures, etc.) – but Fell himself does not seem to have learned his languages that way, and his historical linguistics in particular is strikingly amateur in character.

However, I should perhaps be restrained in my comments here; I myself once failed to distinguish adequately between these two sets of skills when discussing the avoidance of excessively language-specific arguments in respect of philosophical issues!

And in fact there are various exchanges of opinion in which both parties, skeptics as well as ‘believers’, argue very badly indeed. For example, some online discussions of religion contain extremely incoherent ‘reasoning’, on both/all sides; an example is given in note 4.

### **Mēnin aeide, thea, again!**

In my review of the book *The Discovery of Troy and its Lost History* in *Skeptical Intelligencer* 22:3 (2019), I referred to various non-mainstream works which seek to re-assign the Homeric legends to non-Greek locations. A fictional variant on this theme is found in a novel called *The File On H.*, by Ismail Kadare, originally published in Albanian in 1981. In the novel, an Albanian character suggests that the word *mēnin* as instantiated above is in fact the Albanian word *meni* (‘resentment’). One word from Language A (not itself attested at the date in question) in a whole text in Language B; so convincing! As a *New York Times* reviewer remarked: Welcome to the Balkan obsession with precedence! (note 5). The entire story develops from this very point.

### **Hebrew NOT the *Ursprache*!**

Jeff Benner, David Leonardi, Isaac Mozeson (all discussed by me in this forum) and other non-mainstream ‘historical linguists’ of fundamentalist Jewish or Christian persuasions are still upholding the pre-scientific identification of Biblical Hebrew as Proto-World/the *Ursprache*. But there is increasing philological evidence that even the earliest Hebrew displayed features which can only be seen as the result of the **simplification** of an older language which is presumably to be identified with Proto-Semitic (the ancestor of Hebrew, Phoenician etc. as

conceived by mainstream linguists). Proto-World (if there ever was **one** such language; see above) was obviously (much) earlier again (and not especially like Hebrew/Semitic). For a popular exposition of this point, see ‘Tower of Babel vs Linguistics - the quest for the first language’ (*note 6*).

### **Sirius and the Dogon revisited**

The television show *Ancient Aliens* finally turned its attention to the ‘Star Gods of Sirius’. Unfortunately for them, Jason Colavito (see earlier instalments) was lying in wait! (*note 7*). The matter involves claims about the Dogon tribe of Mali made by Marcel Griaule and especially by Robert Temple in his 1976/1998 book *The Sirius Mystery*. This illiterate tribe are supposed to have traditions importing knowledge of the size, density and orbital period of the white dwarf companion of the star Sirius, Sirius B. Temple argues that the Dogon obtained this information (directly or indirectly) thousands of years ago, from intelligent space-faring aliens originating in the Sirius system who also influenced other human cultures and were indeed largely responsible for the emergence of human civilisation. (For more, see Chapter 1: Africa in my 2013 book *Strange Linguistics*). Subsequent anthropological work in the area failed to confirm these claims, but as usual the fringe authors involved are not discouraged. Temple’s work on the Dogon contains much of the familiar highly amateurish historical linguistics (hence my own involvement); and this new material continues along these lines, wrongly claiming that the word for ‘dragon’ is cross-linguistically shared across Eurasia, and urging that gods whose names start with *Dog-* or *Dag-*, such as the Irish divinity Dagda (‘good god’ or ‘shining god’ in Celtic/Indo-European), must be imports from Sirius – as must the English word *dog*, which is in fact etymologically unexplained but is attested only from the late 1<sup>st</sup> Millennium CE (as *docga*) and cannot (as is suggested) be a cognate of these god-names or of the

word *Dogon*. (Dogs on planets orbiting Sirius?! It should be noted that Sirius **was** known in antiquity as the ‘dog star’, but not for this reason!)

### **Really impossible?**

Arthur C. Clarke famously said that if a distinguished but elderly scholar states that something is impossible (s)he is very probably wrong. And youth does not necessarily exempt a scholar from this precept. Of late it has become common for physicists to argue that interstellar travel in what humans might deem a reasonable time-frame is impossible in principle; it is not merely infeasible by any means we can envisage at present, but really conflicts with now very well-established fundamentals of physics. Over the last few years, several pieces have appeared in the skeptical press arguing that the notion of a god (especially a god who interacts with the physical universe) is demonstrably absurd on philosophical grounds, and that religion therefore has no real basis for continuing even as one possible view of the world. Some of the arguments invoked might be regarded as over-stated even by many atheists. In the *Skeptical Inquirer* for July/August 2019 there was a similar piece, by Arthur Reber & James Alcock, arguing, again in philosophical (and scientific) terms, that parapsychological entities and effects cannot possibly exist, on principle.

I suggest that such pronouncements are over-weening and premature. Similar proclamations were made in the past, only to be overthrown as more was learned. Is it not more judicious to say something like ‘I currently do not see how this belief could possibly be true, for the following reasons; and I invite believers to show me I am wrong, either now or later’? Less antagonistic to believers, as well.

In the November/December 2019 issue of *Skeptical Inquirer*, four letters were printed which were critical of Reber & Alcock in terms similar to these. Reber & Alcock replied, defending their stance; a longer article along these lines is forthcoming. They

argue (among other things) that pronouncements regarding the impossibility of some other fringe claims are, in contrast, very generally accepted as valid; but it seems to me that even in these cases (all involving empirical questions) the term *impossible* constitutes an over-statement. (This is **not** to say that any of the claims mentioned are at all likely to be correct; if they **were** correct, they would conflict with very much else in science that is now taken to be established.)

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*Arthur C. Clarke famously said that if a distinguished but elderly scholar states that something is impossible (s)he is very probably wrong.*

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In fact, Reber & Alcock seem almost to contradict themselves, in that they admit that they **would** retract their judgment regarding impossibility if genuinely persuasive evidence were produced indicating that some parapsychological effect really was veridical, however surprising this might be given other evidence about the world – assuming here, of course, that this other evidence really does appear to exclude the effect in question decisively.

I am wondering if the point here might not in fact be in part linguistic (semantic); in empirical domains, what **exactly** do we take the word *impossible* to imply? Maybe our views on this point vary. For my part, I still agree with Reber & Alcock’s critics in finding their use of the term exaggerated and misleading.

### **Notes**

1. <https://tinyurl.com/y2qh34t8>
2. <https://tinyurl.com/rgb7vb>
3. <https://tinyurl.com/r376utg>
4. <https://tinyurl.com/rzkkcnu>
5. <https://tinyurl.com/vopyfy1>
6. <https://tinyurl.com/v7gknh4>
7. <https://tinyurl.com/ts3qt9q>



## REVIEWS AND COMMENTARIES



**Factfulness: Ten Reasons we're Wrong about the World - and Why Things are Better than you Think** by Hans Rosling with Ola Rosling and Anna Rosling Rönnlund. Sceptre, 2018, pp x, 342. ISBN: 9781473637467, pbk. 9781473637458, e-book 9781473637481. £12.99, hbk.

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### Reviewed by Ray Ward

I write this near my 72nd birthday, and if I had taken any notice of the countless cries of 'We're all doomed! Doomed!' I have heard in my life I would never have believed we would have got this far and in reasonable nick. But if there have always been prophets of disaster, there have also been voices saying things aren't so bad. I recall my long-ago A level Geography teacher scorning the 'starving millions' myth: the relief organisations, he said, thought the poverty figures unimpressive and simply doubled them. And the late Adrian Berry, science correspondent of *The Daily Telegraph*, in *The Next Ten Thousand Years* (1974), was similarly scathing about the gloom and doom merchants, particularly the Club of Rome's *The Limits to Growth* (1972), which, he said, misused computer predictions (other critics called it an example of the oldest computer maxim: 'garbage in, garbage out'). He, and my teacher, would have liked this book.

Dr. Hans Rosling (1948-2017) had many claims to distinction: a district medical officer in Mozambique, Professor of International Health at Karolinska Institutet, Stockholm, co-founder of the Gapminder Foundation (*see note 1*) with the co-authors of this book (his son and daughter-in-law), adviser to the World Health Organization, etc. etc.

As attested by the subtitle, this book bears some resemblance to *The Hidden Half* by Michael Blastland, which I reviewed in the *Skeptical Intelligencer* 22:3, Autumn 2019: many of our assumptions, it says, are wrong.

Rosling's ten reasons are the gap, negativity, straight line, fear, size, generalisation, destiny, single perspective, blame and urgency instincts. He tells us how often (very) and by how much (also very) even people one would think well-informed get things spectacularly wrong. One example, which he calls the most important change in the world in his lifetime, is what happened to the proportion of the world population in extreme poverty in the last 20 years: (A) almost doubled, (B) remained about the same, or (C) almost halved. Overall, only 7% got it right, and even among the top scorers in well-educated Sweden and Norway only 25% did (in the UK it was 9%, in the USA 5%, and at the bottom was Hungary with 2%). The correct answer is C. There are many other examples of how wildly wrong people are about the state of the world. An average of 13% got right the proportion of the world's one-year-olds who are vaccinated (80%): 21% in Sweden (the highest), 17% in the USA, 15% in the UK and 6% (the lowest) in France. Would the better-educated or more interested do better? No: Rosling tested medical students, teachers, university lecturers, eminent scientists, investment bankers, multinational company executives, journalists, activists, even senior political decision makers, and what he calls 'a stunning *majority*' (his italics) got most of the answers wrong - sometimes even doing worse than the general public, and worse than if they chose answers at random; some of the most appalling results came from a group of Nobel laureates and medical researchers.

I was sent the hardback for review, but have also seen the paperback, and the publishers are at fault for not changing the statements (pp. 56 and 276) that the World Health Chart is on the inside front cover when in the paperback it is on plates in the middle, along with two other charts which are on the inside back cover of the hardback.

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*What happened to the proportion of the world population in extreme poverty in the last 20 years: (A) almost doubled, (B) remained about the same, or (C) almost halved?*

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The chart is very interesting and revealing. It shows countries as 'bubbles' in proportion to their population, colour coded by four regions (the Americas, Africa, Europe including Russia, and the rest of Asia and Australasia), with the vertical axis showing health and sickness (indicated by life expectancy) and the horizontal one income, as of 2017. We see that the richest countries are Qatar and Luxembourg, the poorest Somalia, the Central African Republic and Burundi, and the healthiest Japan and Singapore, the unhealthiest the CAR (again) and Lesotho. The UK is, of course, near top right, surrounded mostly by other western European countries but also Australia, South Korea, Israel and Japan. There are some surprises, like how comparatively far Portugal is from Spain on both axes, and others less surprising, like the vast distance between North and South Korea.

Rosling divides humanity into four levels by standard of living, shown by transport (1 feet, 2 bicycle, 3 motorbike, 4 car), teeth cleaning (fingers or a stick, one toothbrush for the family, one each, and electric toothbrushes), drinking water, cooking, eating, sleeping, etc. On the chart of people by region (inside back cover in the hardback, on plates in the paperback) the same regional colour coding is used, again showing numbers and income in 2017. We see that only Africa and Asia have significant numbers in Level 1; Asia the most in Level 2, with Africa next and the Americas and Europe very few; Asia again the most at Level 3; and Europe and the Americas, unsurprisingly, the most at Level 4.

The mega-misconception, Rosling says, is that the world is divided into rich and poor. When people in Sweden and the USA were asked what proportion of world population lives in low-income countries, most said over 50%; the average was 59%. It's 9%. As Rosling sums up, they are much more developed than most people think and vastly fewer live in them: 'The idea of a divided world with a majority stuck in misery and deprivation is an illusion. A complete misconception. Simply wrong.' Why? Humans have a strong

dramatic instinct towards binary thinking: good and bad, heroes and villains, nothing in between. Journalists prefer stories of extreme poverty and billionaires to ones about the vast majority slowly dragging themselves towards better lives. Yet in 30 varied countries, including the UK and the USA, over 50% of people, sometimes far more, said the world is getting worse. Sixteen bad things are decreasing, some very much indeed: legal slavery, the death penalty, lead in petrol, smallpox, oil spills, the price of solar panels, HIV infections, child deaths under five, child labour, nuclear warheads, smoke particles, ozone depletion, hunger, and battle, plane crash and disaster deaths. And 16 good things are increasing: new movies and music, protected nature, women's right to vote, science, harvests, literacy, democracy, child cancer survival, girls in school, monitored species, electricity coverage, mobile phones, water, the Internet and immunisation.

There is far more to this book than I can adequately summarise, so I will end with a few of Rosling's pointed remarks:

*Fears that once helped keep our ancestors alive, today help keep journalists employed.*

*More than one thousand old people died escaping from a nuclear leak [Fukushima] that killed no one. (Blastland also mentioned this: see my review).*

*[E]very six months there is a "new scientific finding" about a synthetic chemical found in regular food in very low quantities that, if you ate a cargo ship or two of it every day for three years, could kill you.*

*The UN ... finds it convenient to classify as many as 144 countries as developing (including Qatar and Singapore, two of the healthiest and richest countries on the planet) (way up at top right on the World Health Chart - see above).*

Rosling was a brilliant man and a sad loss, but lives on in this excellent book, which I hope will be much read and noted. Be of good cheer!

#### Note

1. <https://www.gapminder.org/>

*Ray Ward is a Chartered Librarian, has a degree in Politics, is retired after a career in library work, and is a Fellow of the British Interplanetary Society and a member of Mensa and many other bodies.*

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Experiencing the Impossible: The Science of Magic by Gustav Kuhn. Cambridge MA: MIT Press, 2019, ISBN: 9780262039468. Classified LCSH under Magic Library of Congress Subject Heading.

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#### Reviewed by Richard Rawlins

*"Experience" is something that happens to you that affects you and leaves an impression on you.' Jim Steinmeyer, President of The Magic Castle.*

What do we see when we watch a magician pull a rabbit out of an empty hat or read a person's mind? We are captivated by an illusion; we applaud the fact that we have been fooled. Why do we enjoy experiencing what seems

clearly impossible, or is at least beyond our powers of explanation? In *Experiencing the Impossible*, Gustav Kuhn examines the psychological processes that underpin our experience of magic. Kuhn, a psychologist and a magician, reveals the intriguing—and often unsettling—insights into the human mind that the scientific study of magic provides.

Magic, Kuhn explains, creates a cognitive conflict between what we believe to be true (for example, a rabbit could not be in that hat) and what we experience (a rabbit has just come out of that hat). Drawing on the latest psychological, neurological, and philosophical research, he suggests that misdirection is at the heart of all magic tricks, and he offers a scientific theory of misdirection. He explores our

propensity for magical thinking, the malleability of our perceptual experiences—forgetting and misremembering, free will and mind control—and how magic is applied outside the sphere of entertainment—the use of illusion in human-computer interaction, politics, warfare and elsewhere.

We may be surprised to learn how little of the world we actually perceive, how little we can trust what we see and remember, and how little we are in charge of our thoughts and actions. Exploring magic, Kuhn illuminates the complex—and almost magical—mechanisms underlying our daily activities.

In the ancient of days, it was hardly possible to distinguish between a priest, magician and physician. Shamans claimed they could enter the spiritual world directly and even accompany patients to that realm to make their patients well. Priests claimed they could secure the intervention of supernatural spirits to heal emotional and even physical problems by divine intercession. Some additionally assured their flock they would enter the divine realm itself in due course. Magicians claimed they could conjure spirits to work in the immanent world and achieve wondrous physical effects which seemed impossible. Magi could make objects, even people, appear, disappear, transform, levitate or be harmlessly penetrated.

Time has seen these various groups of practitioners become more defined, even into distinct professions. Priests developed organised religions. Hippocrates rejected the notion that spirits caused diseases, or could heal them. He advanced ideas from the Babylonian age that four elements in the universe were related to four humours and balancing these would assist restoration of health. Humourism was in vogue for two thousand years until nudged aside by the Enlightenment. Even today, and in spite of the best endeavours of sceptics urgently promoting critical thinking and the application of scientific

methods to determine healthcare treatments, alternatives are favoured by many. Sceptics advise that the pillules, pin-pricking, powders, pummelling and impost of preternatural powers do nothing in respect of any specific disease, yet up to 50% of patients in America find the experience of engaging with ‘alternative medicine’ one they appreciate. Even the Mayo clinic is prepared to offer ‘integrated medicine’ including acupuncture, at a price. Well, they would, wouldn’t they?

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*In the ancient of days, it was hardly possible to distinguish between a priest, magician and physician.*

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Modern magicians have left shamanism behind and now practise for our entertainment. We know that the hat is empty, so where has the rabbit come from? Schrödinger’s cat is a thought experiment which suggests that at quantum level a cat (or rabbit) can be both alive and dead. Thinking about the implications can induce headaches amongst physicists and the cognitive dissonance can be uncomfortable. A magician offers similar contrary dissonances, but hopes to induce pleasure.

Magic happens in our imaginations, but why do we find the experience of a good magical performance entertaining, pleasurable, satisfying? There surely is an element of catharsis, as with a good joke—the sudden release of emotions and endorphin rush. But there is more, and it takes a doctor of philosophy and student of psychology to explore the conundrums and dissonances generated by contemporary magicians, along with consciousness, perception, magical belief, deception, and exercise of free will.

Swiss born Dr Gustav Kuhn came to London at 19 intending to be a professional magician, but realised he needed to better understand the psychology behind ‘magic’ and went

on to study for a PhD at Sussex. As a pioneering researcher into the science of magic, Kuhn is now based in the Department of Psychology at Goldsmiths’ College, London, and continues lecturing, teaching—and performing magic. It was inevitable that he would set out his consideration of cognition, dissonance, and how it is that by sleight of hand and sleight of mind we can be deceived, fooled, and entertained.

Many of the techniques used by magicians are familiar to the lay public—misdirection, optical illusions, control of attention, manipulation of choice, directing action and of course, the greatest secret of all—magicians lie. But there is a deeper level of cognition involved in the phenomena of psychology and Kuhn is now progressively joined by colleagues around the world in developing the use of scientific methods to explain the experiences of magic; and having magicians assist in explaining how the mind works.

Kuhn has identified that the gaps in our conscious experiences are bigger than had been realised. For example, he advises that most people underestimate the extent to which their attention is misdirected by a phone call, and notes we frequently overestimate own abilities. David Dunning and Justin Kreuger set out similar concepts in 2011, but now Kuhn provides more extensive research on the phenomenon of cognitive bias, shrewdly observing that magicians often find the overconfident heckler easier to fool than a child.

Kuhn’s discursive style might not appeal to scientists used to academic publications, and, being a member of The Magic Circle, Kuhn offers scant intimation as to how tricks and magic effects are achieved. Nevertheless, he walks the fine line with aplomb and offers invaluable insights of the cerebral processes wherein our imaginations provide the experiences which can be so enjoyable. Enter dopamine and associated neurotransmitters which are also so active on

other occasions when the earth seems to move.

Most chapters are given over to expositions of how we make sense of the world, yet can be fooled and how magicians can (seemingly) control minds. I particularly enjoyed the closing discussions on how magic can

be applied in the real world and how science can improve the experiences engendered by magic—wonder, creativity, captivation. Kuhn suggests that a deeper understanding of magic will help translate the principles he identifies from the stage to our daily lives. I recommend that even the most

hardened sceptic should relax occasionally, experience the theatre of thaumaturgy, and will find much pleasure in Kuhn's enlightening theses.

*Richard Rawlins is an orthopaedic surgeon and a member of The Magic Circle.*

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## MARK'S BOOKSHELF

### Mark Newbrook

*Here I review two recent books about (a) the origins of human thought (which the author in question thinks were **not** closely associated with the origins of language as is often theorised) and (b) the origins of human language itself.*

#### **Mind in Motion: How Action Shapes Thought**

Barbara Tversky, Basic Books (New York), 2019, pp viii + 375

Barbara Tversky is a now-emerita professor of psychology at Stanford University in California with a second appointment at Columbia University in New York; her work focuses upon spatial thinking, memory, design and creativity. Her thesis as expressed in this book is, as noted, that the origins of human thought were **not** closely associated with the origins of language; she holds that awareness of space and movement in space, not language, is the foundation of thought, and that the nature of thought thus relates more closely than has been imagined to physical aspects of persons and their environments. An in-house reviewer at Amazon.com summarises her ideas thus:

*Spatial cognition isn't just a peripheral aspect of thought, but its very foundation, enabling us to draw meaning from our bodies and their actions in the world. Our actions in real space get turned into mental actions on thought, often spouting spontaneously from our bodies as gestures.*

Independent reviews of the book have been very mixed; one less-than-impressed reviewer actually suggests that some of the strongly positive summary comments on the book-jacket may have arisen in part out of non-

academic considerations, but some highly qualified commentators endorse much of what Tversky says, albeit not uncritically.

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*'Spatial cognition isn't just a peripheral aspect of thought, but its very foundation, enabling us to draw meaning from our bodies and their actions in the world.'*

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Considering Tversky's conspicuous down-playing of the role of language in this context, and her fairly frequent references to language, it is a little surprising that reviewers have generally said as little as they have about this aspect of the matter. This may be in part a function of the limited overlap between the sets of scholars qualified in linguistics and in psychology; but this surely cannot be the whole story. It may thus be of some use for a linguist (albeit one with a limited knowledge of psychology!) to comment on Tversky's notions.

Tversky concerns herself with an entire series of more specific issues which arise in the context of her thesis, including the essential nature of a thought, the character of pre-linguistic thought in (i) babies and (ii) adults who lived before the development of language, and of the thought of non-human mammals – and, in so far as human thought does involve language,

its probable nature in the far future when languages may be very different.

This last issue involves (a) the question of the central significance of human-language universals as proposed by Noam Chomsky (if Chomsky is correct, future languages will **not** be very different in the most important respects from contemporary languages, any more than contemporary languages differ crucially from each other – except perhaps in the very long term when biological changes of an evolutionary nature have occurred), and (b) the conflict between Chomsky and other universalists on the one hand and, on the other, followers of linguists such as Sapir and Whorf who (i) regard the surface diversity of the set of human languages as fundamental and Chomskyan universals as unreal or, where real, as non-linguistic in origin and (ii) consider that the structures of one's first language very largely determine one's thought patterns. For my own earlier comments on these matters, with references to the literature, see especially my review of Vyvyan Evans' book *The Language Myth: Why Language is not an Instinct* in *The Skeptical Intelligence* 18:2 (2015). See also below on Daniel Everett's recent book.

Tversky's claims regarding language need to be assessed in the light of the accumulated knowledge built up by linguists (and psycholinguists) over many decades (which is not to say that where there is



a conflict in this context linguists are necessarily probably right and Tversky wrong). Tversky does point out (p 90) that there is something of a popular bias in favour of thinking of thought as essentially linguistic, even though, (i) as noted, some entities which clearly can think have no language as such and ii) there is plentiful evidence that at least some types of thought are non-linguistic in nature (p 186, etc.) She counters the popular bias by drawing attention to various facts or possible facts about thinking which she believes support her thesis, such as the fact that humans often use the same kind of language ('metaphorically') to talk about time, abstract relationships, etc. as is used to talk literally about space, suggesting the primacy of spatial cognition (pp 163-164, 170-171, 184, etc.).

In addition, Tversky repeatedly demonstrates her own awareness of the findings of linguists and other language scholars about many other matters involving language; and indeed she herself contributes usefully to the relevant discussions. These themes include:

The ways in which children acquire linguistic categories (pp 36-37);

The contrasts between the basic structural features of language, on the one hand, and of gesture (less complex, except where linguistic signing is in question) on the other, and the earlier evolutionary and developmental origins of gesture (pp 110-111, 115);

The distinction between languages which use (a) absolute or (b) relative/'deictic' reference frames and the cognitive upshots of this contrast (pp 143-144, 150-151; upshots of this kind, if they are genuine, uphold the 'Sapir-Whorf Hypothesis', on which see above);

The frequent salience in both linguistic and non-linguistic spatial conceptualisations of an absolute/participant-neutral or 'allocentric' perspective (as in maps) which seems to facilitate mutual understanding more effectively than 'egocentric',

experience-based expositions of the same information (pp 146-147);

The relationship (for the literate) between the directionality of gesturing and the ductus of scripts (p 171)

The importance of what appears to be the relatively recent development of linguistically-expressed precise-numeral systems (pp 177-179; note the reference here to *Pirahã*, the language extensively and controversially discussed by Daniel Everett [see below]) (*note 1*);

The nature and significance of alphabets and other script-types (p 194; there is, perhaps understandably, a degree of over-simplification here) and of discourse structures (pp 239-240);

Other crucial features of language such as anaphora (p 245);

Etc., etc.

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*One would have to acknowledge Tversky's erudition and sagacity, even if one did not find it possible to agree fully with her thesis.*

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Tversky summarises her ideas about cognition in terms of nine 'cognitive laws', introduced piecemeal throughout her book and summarised on p 289 – just after her concise summary assertion that the entire world as designed by humans is heavily spatial in character (pp 286-288). She also presents other 'broad-brush' summaries of her conception of human psychology, notably some 'general facts worth remembering' which bear on her thesis (pp 14-15, 123-124, etc.) and a focus upon cognition regarding geometric forms which is first introduced on pp 156-157.

One would have to acknowledge Tversky's erudition and sagacity, even if one did not find it possible to agree fully with her thesis. And indeed, allowing for different degrees of perceived conviction, there is little in her work to which one could take serious exception. Occasionally

Tversky appears equivocal, for example where she proclaims that 'it's not **just** [my emphasis] that language structures space' but in the same breath adopts the opposite one-sided view that 'space came first' (pp 186-187).

Topically, Tversky also discusses theories regarding gender-based differences in spatial reasoning, and possible gender-related biases in the assessment of intelligence.

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## **How Language Began: The Story of Humanity's Greatest Invention**

Daniel Everett, Profile Books  
(London), 2017/2018, pp xviii + 330

In the byline of the title of this book, Daniel Everett makes explicit his view of language as a vastly significant aspect of human nature, placing him in opposition to scholars such as Tversky above (predictably, mostly non-linguists) who regard other cognitive faculties as more important. Some skeptical non-linguists, notably the late Martin Gardner, have taken the view that linguists, especially some 'linguistic mavericks', have been prone to exaggerate the importance of their own discipline, though of course they would not be alone in falling prey to such tendencies. But Everett for his part is definitely more than adequately qualified to present his own conclusions/suggestions on these matters.

It should also be noted that even linguists who disagree with Everett on fundamental aspects of the subject would agree with him on this point! This includes Noam Chomsky, who is certainly the most famous linguist in the world and notoriously a universalist and a 'nativist' (who might therefore avoid the term *invention* in this context). Everett made his own reputation in large part through rejecting key aspects of Chomskyan thought, and he begins this present book with a strongly-worded anti-Chomskyan quotation by Philip Liebermann, continuing in this vein. (Everett likes dramatic aphorisms; on p 1 he cites *John 1:1* – 'In the beginning was the word' – and

responds ‘No, it wasn’t!’) Everett is regarded as a major figure by some non-linguistically-trained anti-Chomskyans such as Tom Wolfe; see my review of Wolfe’s 2016 book in *The Skeptical Intelligence* 20:2 (2017).

For more on Everett and other anti-Chomskyan linguists, see again my review of Vyvyan Evans’ book *The Language Myth: Why Language is not an Instinct* in *The Skeptical Intelligence* 18:2 (2015).

Everett’s best-known empirical evidence on this front involves Pirahã, a tribal language of Brazil with a most unusual set of structures, some of them involving the sparsity or total absence of systems which almost all other languages display more fully (for example, numbers as mentioned above); he argues that some of these features (like some features of various other languages reported by others) conflict with some of the most basic linguistic universals proposed by Chomskyans (which are mostly rather abstract aspects of grammar). For a partly popular treatment of these matters, see his 2008 book *Don’t Sleep, There are Snakes: Life and Language in the Amazonian Jungle*. Attempts to teach Pirahã-speakers to manipulate fuller systems have generally been unsuccessful, and when they try to learn a foreign language (usually Brazilian Portuguese) they generally achieve only a pidgin-like approximation to the language, which still displays reduced systems. All this suggests that at least a weak form of the always controversial ‘Sapir-Whorf Hypothesis’ (‘one’s thought is very heavily influenced by the structures of one’s first language’) is valid.

In some work published with his associate Michael C. Frank and others Everett himself warns against exaggerating this interpretation of the situation. And some linguists, including Chomsky himself, have argued that his analysis of Pirahã has gone more seriously astray than that: his analyses are inaccurate, or, even if accurate, do not have the devastating implications for Chomskyan linguistic theory that he thinks they have. But he has certainly

made out a *prima facie* strong case for his views.

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*He argues that Homo erectus ‘invented’ language nearly two million years ago (long before the date of 200,000 BP or later usually proposed for Homo sapiens).*

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In this present book, Everett again draws on data from Pirahã, and adds material from other Amazonian languages such as Banawá. And he continues to argue against Chomskyan models of human language as we know it. But his main theme involves much older stages of human communication. He argues that *Homo erectus* ‘invented’ language nearly two million years ago (long before the date of 200,000 BP or later usually proposed for *Homo sapiens*), and that *Homo neanderthalensis* and *Homo sapiens* were ‘born into a linguistic world’. Language is not, he says, simply another form of animal communication. Its core is ‘the symbol, a combination of a culturally agreed upon form with a culturally developed meaning’. This claim itself appears platitudinous; it is its application to *Homo erectus* etc., involving the reflection of alleged linguistic capabilities in their surviving artefacts, which is iconoclastic.

On this account, Pirahã, with its unusually limited structures, might be a surviving exemplar of an earlier, perhaps pre-*sapiens* stage of human language. See below on earlier ideas of this kind.

If Everett is correct in ascribing even simple versions of language to *Homo erectus* (see below), the Chomskyan view of language as a **species-specific** innate faculty is obviously called into question. This would constitute a second major blow to Chomskyan ideas about language – which would be especially devastating in the United States, where these ideas almost represent a mainstream orthodoxy. (But see below on issues

with the notion of an inter-species language faculty.)

The significance of artefacts brings into focus other recent work on the possible links between early human technology and the development of the language faculty. In a 2017 University of Southampton PhD dissertation (*note 2*), Cory Marie Stade reports the testing of hypotheses about connections between the surviving material artefacts of very early peoples and their linguistic capabilities. (I propose to discuss Stade’s ideas in this forum in due course. Stade herself does not refer to Everett’s then-very-recent book.)

By way of background to these considerations of possible very ancient human language: in Chapter 3 of my 2013 book *Strange Linguistics* I reviewed the discussions of the issue of the pre-historic evolution of human language up to that time (naturally focusing upon non-mainstream and ‘maverick’ ideas). It must be said that I would have written somewhat different versions of the background sections of that chapter if I had had access to the findings and discussions which have arisen over the last six years, such as those mentioned in this review. But readers might still like to review my comments in that place.

Some earlier scholarly reviewers have found themselves largely persuaded by Everett on the question of *Homo erectus* and language. Online reviewers (Amazon, etc.) vary a great deal in their assessment of the book, but the longest and most positive review that I have found on Amazon.co.uk is by a linguist: Jacques Coulardeu, who holds a PhD in Germanic Linguistics and other relevant qualifications. Turning to more formal reviews: Oliver Kamm (*note 3*), despite judging that ‘there is a lot in the idea of an innate [MN: maybe species-specific?] language faculty’ (as per Chomskyan nativism), ends up by essentially endorsing Everett’s notion, suggesting that the **gradual** emergence of language over a very long period involving more than one *Homo* species is ‘totally consistent with the centrality of natural selection’ in human evolution as a

whole. (In this context, Everett himself, on p 67 here, cites the anthropologist Agustín Fuentes as arguing for a ‘holistic’ understanding of the evolution of species such as *Homo sapiens*.) Norbert Francis (publishing in a leading linguistics journal despite not himself being a linguist; see *note 4*) regards the book as outstandingly important and as making the strongest case to date for the views expressed, although he finds ground for criticising some detailed points. Francis decries the virulence and unfairness of some quasi-hysterical reactions to Everett’s anti-universalist stance (compare Geoffrey Sampson’s repeated observations about the apparent anger and/or contempt of some Chomskyans confronted with rival views). There is more in the same general vein from other reviewers.

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*There is a mainstream linguistic skein of thought involving the idea that the earliest human languages, at a slightly earlier ‘evolutionary’ stage, resembled pidgin languages.*

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In ‘Language on the Fringe’ in *The Skeptical Intelligencer* 21:3 (2018), I referred to the growing strength of the case for *Homo erectus* as a sea-farer and to the argument that in order to plan a community sea voyage and construct the relevant vessels *erectus* must have had language – spoken or signed. In some of his most telling passages, Everett refers to this then-very-recent tradition of thought, notably on pp 58-61 in the context of the evidence for an *erectus* population on then-already-insular Flores (Indonesia). He goes on from such considerations to speculate about the specific kind of language – a relatively simple one, perhaps, but still

adequately expressive; Everett uses the term *G<sub>1</sub> language* – which *erectus* might have used (see for example pp 61-65).

There is a mainstream linguistic skein of thought involving the idea that the earliest human languages, at a slightly earlier ‘evolutionary’ stage, resembled pidgin languages, which are even more basic than Everett’s conception of a *G<sub>1</sub> language*; there is some quite persuasive structural evidence for this theory. Some of this existing work is implicitly concerned with early *Homo sapiens*, not with *erectus*; but the most prominent linguist to have made such proposals is Derek Bickerton, who foreshadowed Everett’s views in holding that human language is not on a continuum with animal communication systems, that it probably originated as long as two million years ago (placing it in the time of *Homo erectus*) and that ‘displacement’ (the capacity of referring to items and processes that are not present), not grammar as Chomskyans and many other linguists maintain, is the most important distinguishing feature of language (see pp 92-93, 102-103 of this present book on this last point). (If Everett’s interpretation of Pirahã really is correct, it obviously follows that grammar is less crucial than is often thought. Other recent scholars such as Terrence Deacon and Paul Monk – who are admittedly not themselves linguists – have made similar proposals.) Everett refers only once (p 165) to Bickerton, acknowledging his priority in this area but rejecting his term *protolanguage* as **overstating** the difference between *erectus* language as he conceives of it and *sapiens* language.

Naturally, it is not entirely clear how any contingent characteristics of language might have been transferred

between different human species. Neither is it clear that a single origin for human languages (‘monogenesis’) in the time of *Homo erectus* would imply that the same single *Ursprache*/Proto-World would be the (very deep) ancestor of all human languages used by whatever species at whatever time. Comments on such fronts, by Everett or others, must be treated with caution. The matter of the ultimate (obviously African) origin of humans as a genus and the still disputed question of whether or not *Homo sapiens* spread much later from a common African source or developed over and over in different areas after earlier diffusion are clearly separate issues, albeit connected. But this, and ongoing debates about Everett’s proposals more generally, do not diminish the importance of his work.

Some online and even some scholarly reviewers find the book rather heavy-going for non-specialists, and – despite Everett’s obvious efforts at making his ideas clear to an intelligent and interested lay audience – I can understand that reaction. But anyone with a genuine interest in such matters should not be discouraged.

#### Notes & References

1. On the apparent absence of precise numbers in Pirahã, see for example Rafaela von Bredow’s 2006 paper ‘Living without numbers or time’, <http://tinyurl.com/ts2yrkb>
2. *Lithic Morphological Variability as a Proxy for Palaeolithic Linguistic Ability: A Knapping Training Study Exploring Cultural Transmission, Theory of Mind and Language*
3. <http://tinyurl.com/s9cf4lt>
4. *Journal of Linguistics* 53 (2017), pp 1–5 (available at <http://tinyurl.com/tzb8kr5>)

## ANNOUNCEMENTS

### OF INTEREST

#### SKEPTICISM, SCIENCE AND RATIONALITY (GENERAL)

##### **Sense About Science**

Keep visiting the Sense About Science website for new developments and read about the achievements of 2020:

<http://www.senseaboutscience.org/>

##### **Good Thinking**

Make sure that you are on Good Thinking's Newsletter email list:

<http://goodthinkingsociety.org/>

##### **The Skeptik**

*The Skeptic* is the quarterly periodical of the Slovak Society of Skeptics and is freely available in English online at:

<https://tinyurl.com/yx6for67>

The editors have asked us to draw readers' attention to two papers in particular, the first on the use of anti-oxidants in sports and the second on crop circles:

<https://tinyurl.com/vlra4fa>

<https://tinyurl.com/r5cffeu>

#### MEDICINE

##### **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.nightingale-collaboration.org/>

##### **Clinical trials**

All Trials 2019 report on clinical trial reporting by academic institutes for the UK's House of Commons Science and Technology Select Committee. At:

<http://tinyurl.com/y2x47x44>

Also: 'The results of around 500 clinical trials run by NHS Trusts remain unreported, an analysis of registry data combined with responses to Freedom of Information Requests indicates. In total, medical discoveries that cost NHS Trusts and their funders over £250 million to generate may be

at risk of becoming research waste.' At:

<http://tinyurl.com/yxpj9dkv>

And from *BMJ*: 'We need a system wide strategy to record and manage conflicts of interest across healthcare'. 'There is a long history of individuals and organisations attempting to fix the biases that arise from conflicts of interests. Such conflicts contribute to a breakdown in research integrity and lead to more favourable outcomes for sponsors, the withholding of results, and an overall lack of trust in research.' At:

<http://tinyurl.com/qo5srsc>

##### **Alternative medicine generally**

'Seekers after unconventional treatments should do so on the understanding that they have not been proven to work.' At:

<http://tinyurl.com/y5reatt3>

Also: 'Google has stopped promoting adverts linking homeopathy pills to childhood vaccinations after a Daily Mail investigation. The search giant had been promoting sales of medically ineffective tablets branded under names such as 'MMR' and 'Rubella' to those who searched on related topics.' At:

<http://tinyurl.com/vcynzcl>

Also: Visit the Anti-Quack site, 'Complementary medicine – exposing academic charlatans' at:

<https://frankvanderkooy.com/>

See paper: 'U.S. Physician recommendations to their patients about the use of complementary health approaches'.

'Massage therapy was the most commonly recommended CHA (30.4%), followed by chiropractic/osteopathic manipulation (27.1%), herbs/ nonvitamin supplements (26.5%), yoga (25.6%), and acupuncture (22.4%).'

<http://tinyurl.com/yx62eweh>

##### **Medical scientific fraud in China**

'There is a systemic problem with fraud in Chinese medical science. The problem goes all the way to the top.' (Note that for some reason you may have to copy-and-paste the link below rather than click on it.)

<https://sciencebasedmedicine.org/scientific-fraud-in-china/>

##### **Medicine in India**

'India's health ministry announced last week its plan to register and regulate all medical devices in the same way as drugs due to concerns over their safety and quality. The government's decision comes almost a year after the Implant Files investigation by the International Consortium of Investigative Journalists, the Indian Express and more than 50 media partners found a poorly regulated medical device industry that was hurting patients.'

<http://tinyurl.com/y3v8fjzn>

##### **Functional medicine**

'A specialist in alternative "functional medicine" has been suspended from the UK medical register for nine months after a tribunal found that he "persistently overdiagnosed thyroid problems" and treated patients with drugs that were not clinically indicated. Georges Mouton, 62, practises privately from a clinic in London's West End. Functional medicine, said to be a holistic approach that focuses on the root causes of disease, is not recognised in the UK. The General Medical Council's allegations against Mouton accused him of ordering unnecessary or unproved tests, sometimes without obtaining proper consent, on eight patients treated between 2013 and 2016.'

<http://tinyurl.com/y66mg49m>

##### **Fentanyl**

'In 2016 I testified at an FDA hearing about the "opioid crisis," which was starting to make its way into the news in a big way. I was the last of 15



speakers, which included, among others, addiction specialists, physicians, patient advocates and parents whose children had died from drug overdoses. The word “fentanyl” was not mentioned even once until I spoke, when I predicted that it, which I referred to as the “devil in the room,” was the real threat. Some people looked at me as if I had sprouted moose antlers. I could almost hear them thinking “what is this guy talking about?” Despite the fact that fentanyl had just begun to pour into the US two years earlier the hundreds of people in the room seemed to be oblivious to what was really going on.’

<http://tinyurl.com/y3c5vdps>

### **Vaccination**

‘Samoa has arrested an anti-vaccination campaigner as the country continues to battle a deadly measles outbreak. Edwin Tamasese was charged with incitement against a government order after he was detained on Thursday. The outbreak - which has killed at least 63 people, mostly young children, since October - is in part blamed on people spreading false information, claiming vaccinations are dangerous.’ At:

<https://tinyurl.com/vsybajz>

Also: ‘The head of the NHS today launches an outspoken attack on the homeopathy industry for peddling deadly anti-vaccine myths. Simon Stevens accuses practitioners of spreading toxic ‘misinformation’ about jabs, which poses ‘a significant danger to human health’. At:

<http://tinyurl.com/yxtdxl4z>

And: ‘An Albany judge has dismissed a lawsuit that challenged the constitutionality of New York’s controversial new school vaccination requirements. More than 50 families had filed the lawsuit in July, arguing that a newly enacted law eliminating religious exemptions to school vaccination rules was driven by religious hostility and violated their religious freedom rights under the U.S. Constitution. But in a decision entered last week, Albany County Supreme Court Justice Denise Hartman said

events leading up to the law’s passage “all lead to the inexorable conclusion” that the repeal was driven by public health concerns, not religious animus.’

<https://tinyurl.com/r2m4d7b>

### **Pelvic meshes**

‘Johnson & Johnson has agreed to a \$117 million multistate settlement over allegations it deceptively marketed its pelvic mesh products, which support women’s sagging pelvic organs.’

<http://tinyurl.com/y25awpjo>

### **Slapping therapy**

‘A man who ran a “slapping therapy” workshop faces a manslaughter charge over the death of a woman who attended.’

<http://tinyurl.com/y3v8fjzn>

### **Acupuncture**

‘The British Acupuncture Council (BAC) has written to the editor of the *Guardian* newspaper requesting corrections to an article it published on 6th November. The article, entitled “Doctors call for tighter regulation of traditional Chinese medicine”, makes assertions about the safety of acupuncture which the BAC claim are misleading.’ See:

<https://tinyurl.com/q15zqqz>

And for the *Guardian* article, go to:

<https://tinyurl.com/y9v8bv4>

### **Homeopathy**

‘The High Court is to be asked (*by Good Thinking*) to decide whether the statutory regulation of homeopaths is safe, amid concerns that some of those on an accredited register are offering an anti-vaccine “cure” (*CEASE*) for children with autism.’ At:

<http://tinyurl.com/y9v8bv4>

And: FDA statement on the agency’s efforts to protect patients from potentially harmful drugs sold as homeopathic products. At:

<http://tinyurl.com/y3nbye3u>

Also: ‘A scientific look at how DNA is used to recognize commercial herbal medicines reveals an alarming problem: we’re not very good at identifying them.’

<https://tinyurl.com/th8dg6t>

### **Chiropractic**

‘A man whose neck broke as he was treated by a chiropractor shouted “You are hurting me,” his widow told an inquest. John Lawler, 80, was attending Chiropractic 1st in York in August 2017 when he said he could not feel his arms and became like a “ragdoll”.’ At:

<http://tinyurl.com/wlqjreb>

And: “Deeply disturbing” footage of a Melbourne chiropractor performing a controversial treatment on a baby has prompted the Victorian government to refer him to regulatory bodies. The footage posted online shows the chiropractor holding the baby, believed to be two weeks old, upside down then applying spinal manipulation treatments.’ At:

<https://tinyurl.com/rofz5q3>

### **Abortion pill reversal**

“Even if you’ve taken the abortion pill, you can still change your mind,” proclaims the website of a group called Alternatives Pregnancy Center. The center offers what it calls “abortion pill reversal,” a treatment it claims can stop a medication abortion that’s already been started. Many organizations around the country are beginning to offer the procedure, and a growing number of states require that patients seeking abortions be told about it. But there’s a problem. “All of the evidence that we have so far indicates that this treatment is not effective”.

<http://tinyurl.com/r9ah9jr>

### **‘Active Posture Ltd.’**

‘The Facebook page for ActivePosture, a clothing company, seen on 13 January 2019, featured claims in the “About” section which stated “Posture clothing activates muscle memory to help you achieve an improved, upright posture... Posture clothing: can reduce back pain and tension in neck and shoulders (see survey), helps you to achieve aligned posture through posture awareness, activates and stimulates inhibited muscles, decreases tension in overstrained muscles, improves muscle-memory”...Pretty much everyone can improve their posture from wearing posture

clothing”. For the ASA Ruling on Active Posture Ltd. see:

<https://tinyurl.com/soqk63b>

### Where the sun don't shine—or didn't use to

Re: ‘perineum sunning’: ‘In recent months, the new “self-care” method—aka “butthole sunning”—has started to gain momentum, mostly thanks to a few social media influencers whose photos and videos have gone viral. Apparently, an Instagram video by user @ra\_of\_earth came first in October, showing three completely nude men lying down on their backs, butts to the sky, to soak up some rays. “In a mere 30 seconds of sunlight on your butthole, you will receive more energy from this electric node than you would in an entire day being outside with your clothes on,” he said in the video’.

<https://tinyurl.com/twu9vtm>

## PSYCHOLOGY AND PSYCHIATRY

### Talking therapies

‘Comedy writer and journalist Ariane Sherine created and organised the Atheist Bus Campaign, persuading Richard Dawkins and the British Humanist Association to support her – and buses with variations on the slogan ‘There’s probably no God. Now stop worrying and enjoy your life’ ran in 13 countries across the globe.

As a result, Ariane received an Inbox full of hate mail from Christians, which eventually led to a major nervous breakdown and suicidal ideation. She ended her journalistic career, and didn’t write again for over three years.’

Ariane now, amongst other activities, presents talks on how therapy and medication saved her life, and has written a book, *Talk Yourself Better: A Confused Person’s Guide to Therapy, Counselling and Self-Help*. See:

<https://tinyurl.com/wjznfpz>

### Forensic hypnosis

‘For decades, US law enforcement has used “forensic hypnosis” to help solve crimes – yet despite growing evidence

that it is junk science, this method is still being used to send people to death row.’

<http://tinyurl.com/y3rwd8ao>

### Repressed memories

‘Can purely psychological trauma lead to a complete blockage of autobiographical memories? This long-standing question about the existence of repressed memories has been at the heart of one of the most heated debates in modern psychology. These so-called memory wars originated in the 1990s, and many scholars have assumed that they are over. We demonstrate that this assumption is incorrect and that the controversial issue of repressed memories is alive and well and may even be on the rise.’

<http://tinyurl.com/y66vwq88>

See also the paper ‘Belief in Unconscious Repressed Memory is Widespread...’ at:

<http://tinyurl.com/y6yusv7e>

### Psychology in the workplace

Announcing: *A Skeptic’s HR Dictionary: The Ultimate (self-defence) Guide for CEOs, HR Professionals, I/O Students and Employees* by Patrick Vermeren.

‘The book is about the many HR theories, models, questionnaires and practices. Many of them lack any scientific background. But in this book valid alternatives are offered.’

<http://tinyurl.com/y3v8fjzn>

### Belief in false information

‘Is your mental library a haven of accurate and well-informed facts, or are there mistruths hiding on the shelves? It’s natural to assume that we update our beliefs in line with the most recent and well-established evidence. But what really happens to our views when a celebrity endorses a product that becomes discredited by science, or when a newspaper publishes a story which is later retracted? A recent paper from the Journal of Consumer Psychology presents a novel take on this topic, by investigating the continued influence effect.’

<https://tinyurl.com/yx34tp5j>

### Sleep paralysis

Podcast: ‘Debunking the demons: sleep paralysis explained’ with Chris French.

<https://tinyurl.com/t5e93k6>

### Antidepressants and children

‘A talk about Study 329 that wasn’t correctly reported about antidepressant paroxetine increasing suicidality in children.’

<http://tinyurl.com/ve6x7az>

## POLITICS AND SOCIAL POLICY

### Extreme politics

‘In this article, we examine psychological features of extreme political ideologies. In what ways are political left- and right-wing extremists similar to one another and different from moderates?’

<http://tinyurl.com/yyqquyej>

## CONSPIRACY THEORIES

### QAnon

‘A significant Australian proponent of the QAnon conspiracy theory is a family friend of Scott Morrison, and his wife is on the prime minister’s staff. The sprawling, disjointed and incoherent QAnon conspiracy variously claims that Donald Trump is leading a behind-the-scenes fight against a shadowy deep state, that powerful forces are hiding and protecting satanic paedophile rings, and that a secretive individual named Q leaves clues for his followers to decipher on internet forums.’

<http://tinyurl.com/y5vcjgyh>

## RELIGION AND CULTS

### Witchcraft

‘The number of children known to have been abused in England over beliefs in witchcraft and possession has risen by a third in two years, figures show. Almost 2,000 suspected victims were identified by authorities in 2018-19, but experts believe the real figure may be far higher because of a lack of awareness over the phenomenon. Child abuse linked to faith or belief, which includes exorcism attempts and

violence against suspected “witches”, has already resulted in several deaths.’

<http://tinyurl.com/udjwqdh>

### Science and religion

‘The Ohio House of Representatives (*have*) passed the “Student Religious Liberties Act,” a law prohibiting students from being penalized when their work is scientifically incorrect so long as they attribute it to their religious beliefs.’

<http://tinyurl.com/yfhkpn89>

### ECOLOGY

#### Amazon forest fires

‘Without offering proof, Brazilian President Jair Bolsonaro ... said actor Leonardo DiCaprio had funded nonprofit groups that he claimed are partly responsible for fires in the Amazon this year. Bolsonaro’s remarks about the American actor were part of a wider government campaign against environmental nonprofit groups

operating in Brazil. “DiCaprio is a cool guy, isn’t he? Giving money to set the Amazon on fire,” the president said to supporters in Brasilia.’

<https://tinyurl.com/sbheoh7>

### MISCELLANEOUS

#### Precognition

Precognition is the claimed paranormal ability to predict the future – and is widely considered to be pseudoscience. Why, then, is the US psychic industry worth \$2bn a year?

<http://tinyurl.com/y3rak3cq>

#### Ghosts

‘Revolutions in digital technology have created a new space over which scary fables can propagate, and new potential for reach. Contemporary ghost stories can go viral, crescendo into panics.’

<http://tinyurl.com/vuxpqv7>

#### Website of interest

Psience Quest is a discussion site for everyone who’s interested in psi,

evidence of survival after death and related subjects.

<http://tinyurl.com/y5bp3lf5>

#### Longevity

‘Was the oldest woman in the world a fraud? Jeanne Calment was 122 when she died. But last year a Russian scientist claimed she was a con artist, sparking an international dispute over the woman who may still hold the secret to eternal life.’

<https://tinyurl.com/rss72bf>

#### Particle physics

‘Researchers in Hungary have published the exciting new claim that they’ve discovered a new subatomic particle, but it’s nowhere near time to start talking about Nobel Prizes, as CNN (and now everyone who syndicates them) has done.’

<https://tinyurl.com/yx4n5dsc>

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## UPCOMING EVENTS

### EUROPE-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](http://theesp.eu/events_in_europe)).

### SKEPTICS IN THE PUB

Choose the venue you are looking for to access the upcoming events.

<http://tinyurl.com/lwohd4x>

### CENTRE FOR INQUIRY UK

For details of upcoming events:

<http://centreforinquiry.org.uk/>

### CONWAY HALL LECTURES LONDON

25 Red Lion Square, London  
WC1R 4RL

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

### 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

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

<http://uk.funzing.com/>

## LOGIC AND INTUITION: ANSWERS

### **The two walkers**

The two people have to remain at the same altitude while trying to minimise the distance between them at any time. They can achieve this as follows.

If they are both on a level plane they continue walking. Whoever reaches an incline first (up or down) waits until the other does so. (The first incline must be upwards since they both start at sea level and can't go

below this.) If they are both faced with an ascent or a descent, as they ascend or descend they must adapt the length of their strides so they rise or fall by the same amount with each step (Pythagoras's theorem comes in here).

If at any time one of them (say A) is faced with a descent and the other (B) with an ascent, B retreats until he or she can go downwards while A also carries on down or they may similarly

choose to both go upwards, again adapting the length of each stride so they fall or rise by the same amount with each step.

I believe that this will ensure that they can eventually meet up, even though things might get tricky if at any time one of them is face with a precipitous drop or rock face.

### **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 or email:

[m.heap@sheffield.ac.uk](mailto:m.heap@sheffield.ac.uk)

email: [aske1@talktalk.net](mailto:aske1@talktalk.net)

website: <<http://www.aske-skeptics.org.uk>>