

THE SKEPTICAL *INTELLIGENCER*

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Incorporating the Skeptical Adversaria: the ASKE Newsletter

Edited by Michael Heap

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CONTENTS

Regular features and announcements

From the ASKE Chairman	1	The European Scene	11
Logic and Intuition	2	Of Interest	12
Medicine on the Fringe	2	Upcoming Events	16
Language on the Fringe	3	Logic and Intuition: Answers	16

Book reviews and commentaries

The Language Myth: Why Language is not an Instinct reviewed by Mark Newbrook	7
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Promoting science, reason and critical thinking

THE 16th EUROPEAN SKEPTICS CONGRESS
September 11th to 13th 2015
Goldsmiths College, London

Website: <http://eurosepticscon.org/>

Facebook: <https://www.facebook.com/skeptics.eu>

Twitter: <https://twitter.com/EuroSkep2015>

The congress programme is now complete. We have a wide range of eminent speakers on topics such as religion and humanism, medicine, science, pseudo-science and anti-science; parapsychology, and research into paranormal and supernatural claims. Details of affordable accommodation for delegates are provided on the congress website. Michael Marshall is also preparing a series of podcast interviews of many of the congress speakers and these are listed at <http://feeds.feedburner.com/ESCO2015>.

GUIDELINES FOR AUTHORS

The *Skeptical Intelligencer* welcomes formal and informal contributions on any subject within the ambit of the Association for Skeptical Enquiry (ASKE).

Formal articles should be aimed at the intelligent layperson, and authors should take particular care to define or explain unusual terms or concepts. Equations, statistics or other numerical and symbolic tools may be employed whenever required. Articles should be as succinct as possible, but may be of any length.

Authors of contributions to the *Skeptical Intelligencer* should be take care to ensure that texts are temperate in tone and free of vituperation. They should also ensure that arguments are either supported by express evidence/arguments or identified as speculative. ‘Do not pretend conclusions are certain that are not demonstrated or demonstrable.’ (T.H. Huxley).

Before being accepted for publication, submitted texts will be reviewed by the Editor and any appropriate advisors. Where improvements or changes are desirable, the editorial team will work with authors and make constructive suggestions as to amendments.

Authors should submit an electronic, double-spaced copy of their article or letter.

When referring to another work, authors should:

- Cite only the surname, year, and (where appropriate) page number within the main text: e.g. ‘...according to Hyman (1985: p. 123), the results of this test were not convincing...’ or

‘...according to Bruton (1886; cited in Ross, 1996)...’

- List multiple references in date order: e.g. ‘...a number of studies have thrown doubt on this claim (Zack, 1986; Al-Issa, 1989; Erikson, 1997)...’ In the case of electronic material, give the author and the date the material was accessed on line
- Place Internet addresses URLs in angle brackets: e.g. <<http://www.nothing.org>>

A complete list of references in alphabetical order of authors’ surnames should be given at the end of the article. The list should be compiled using the following conventions:

- Articles: Smith, L.J. (1990) An examination of astrology. *Astrological Journal*, 13, 132-196.
- Books: Naranjo, X. (1902) *The End of the Road*. London: University of London.
- Chapters: Griff, P. (1978) Creationism. In D. Greengage (ed.) *Pseudoscience*. Boston: Chapman Publishers.
- Electronic material: Driscoe, E. Another look at Uri Geller. <<http://www.etc.org>>. Accessed 21 April 1997.

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Finally, authors may use ‘sceptic’ or ‘skeptic’ (and their derivatives) according to their preference.

For further information contact the Editor Michael Heap at m.heap@sheffield.ac.uk.

Editor’s Announcement

ASKE’s *Skeptical Intelligencer* is a quarterly magazine. Paper editions are available on request (see front page). The magazine 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. Would you like to contribute a regular column in your specialty or area of interest – e.g. an ‘On the Fringe’ feature? Or would you like to take over one of the regular features? Please get in touch with the Editor if you wish to make a contribution to skepticism in this way.

REGULAR FEATURES

FROM THE ASKE CHAIRMAN

Michael Heap

One item of news since the last issue of the *Intelligencer* will be greatly welcomed by UK skeptics. This is the long-awaited publication (*notes 1 and 2*) of 27 letters exchanged between Prince Charles and UK government ministers and departments, followed up by the release of a further 17 letters (*note 3*). They are only a small sample of the correspondence between the prince and government ministers over many years. In 2012 a tribunal ruled that the letters should be disclosed, as the public was entitled to know how and when the prince sought to influence government. However, the then Attorney General Dominic Grieve vetoed the ruling, arguing that publication of the letters would seriously damage Charles's future role as King because they would compromise his political neutrality. This was a somewhat illogical argument since the Prince himself had already done this by writing the letters (and there is no guarantee at all that when he eventually becomes King he will display political neutrality). In March the Court of Appeal ruled that Mr Grieve's use of the veto had been unlawful; the judges declared that he had 'no good reason for overriding the meticulous decision (*of the tribunal*)'.

The first batch of letters refer to a range of topics including 'beef farming, dairy quotas, the power of supermarkets, Lynx helicopters, badger culling, Irish gaols, the fate of sea birds, derelict hospitals, listed buildings, Scott and Shackleton's Antarctic huts, summer schools, old-fashioned teaching methods, herbal medicines and of course, albatrosses and the Patagonian toothfish'. The second batch includes further appeals in favour of alternative medicine and concern about hospital food.

The insistence that the *reigning monarch* should act in a politically

impartial manner appears to be universally held and is likely to have been reinforced by the strict example set by the Queen herself for the last 63 years. (Before that, her great uncle Edward VIII's comment during a tour of poverty-stricken villages in South Wales that 'something must be done' was interpreted as interference in political matters. Her father George VI actively supported Neville Chamberlain's appeasement policy and was initially unhappy about Winston Churchill's succeeding him as prime minister. He was known to be uneasy about the pace of reform instituted by the postwar Labour government and the dismantling of the British Empire.)

His role when he is King is to unite the nation, not divide it.

There have only been three previous heirs apparent in the last 100 years. The future Edward VIII seemed more interested in his personal life than anything else and his brother, the future George VI, was first in line for only a brief period until the Abdication in 1936. The present Queen was only 26 when she came to the throne in 1952. So the implicit rules that limit the future monarch's overt expression of his or her political views are not clear. It seems reasonable to speculate that the rigorous standard of perceived neutrality set by Charles's mother, which is highly valued by the nation, has created similar expectations about the behaviour of the next in line, even before he comes to the throne.

Despite this, it does not seem that the public in general have been all that troubled by what Charles has to say or about his writing the letters in the first place. Journalists are divided. Apologists for the Prince claim that in the course of his duties he meets

thousands of people from all walks of life and all he is doing is drawing the government's attention to their concerns. Inspection of the letters does not bear this out: clearly he is expressing his own concerns and opinions and what policies the government should adopt. Neither does the accolade 'a man ahead of his time' (by 10 years according to his son Harry, who recently advocated the return of National Service) hold up. One may say that people can agree or disagree with his opinions and politics but his role when he is King is to unite the nation, not divide it.

Whether or not the Prince is entitled to voice his opinions to government ministers, what is of most concern is that this has largely been undertaken in secrecy. In addition, according to the *Guardian*, analysis of court circulars reveals that since the start of 2010, he has held 87 meetings with ministers, opposition party leaders, and top government officials. Also, from the beginning of 2015 until the start of the election campaign, he held meetings with, among others, David Cameron, SNP leader Nicola Sturgeon, education secretary Nicky Morgan, and Alistair Carmichael, then Scotland Secretary. That the British public should not be allowed to know the contents of all of this lobbying and letter-writing between its elected government and the future head of state is an affront democracy.

Notes

1. <https://www.gov.uk/government/collections/prince-of-wales-correspondence-with-government-departments>
2. <http://www.theguardian.com/uk-news/prince-charles-letters>
3. <http://www.theguardian.com/uk-news/live/2015/jun/04/second-batch-of-prince-charles-black-spider-memos-to-be-published-live>

LOGIC AND INTUITION

Puzzles concerning reciprocity

A couple of previous puzzles in the *Intelligencer* have concerned reciprocity. As such they appeared simple but for me at least they were fiendishly difficult. One was ‘Of all the people who have ever lived up until now, is the number of those who have shaken hands an odd number of times even or odd?’ The other was ‘At any party there will always be at least two people who have the same number of friends present. True or false?’

Here are two more, the answers to which are on pages 16-17:

Friends and strangers

At a dinner party of six people there will *always* be either at least three people who are mutual friends or at least three people who are mutual strangers. True or false?

Another handshake problem

At a party each person shook hands with every other person just once. There were 45 handshakes altogether. How many people were at the party?

Yet more on ‘How much has Albert lost?’

The puzzle in the Autumn 2014 issue of the *Intelligencer* went like this: a stranger gives a shopkeeper, Albert, a £10 note to purchase £6 of chocolate. Having no change, Albert goes to the florist’s next door and exchanges the note for £10 in coins, and gives the stranger £4 change. Later the florist announces to Albert that the £10 note is a forgery and Albert has to then give her an authentic £10 note. So how much has Albert lost?

The answer that I gave was £10, although many people will say £14 (to include the £4 change), or £20 (to further include the loss of the chocolate), or £18 (if the cost price to Albert for the chocolate was only £4).

The puzzle provoked some interest and in the Winter issue of the *Intelligencer* I provided more arguments in support of the answer I gave. However, some people remain to be convinced, namely reader Rory Allen and a friend of mine, MP, who is an experienced accountant. (As

reported in the Autumn issue, another accountant, JP, confirmed my answer based on his professional reasoning.) The arguments of Rory and MP and are presented on page 17.

Before you read these, below is a simpler variation of the puzzle that may help. Keep in mind that essentially I maintain that what happened to Albert is no different than if, at the end of the day, he simply discovers he is £10 short of his expected takings. Hence in the puzzle his loss is £10.

A variation of the puzzle

Suppose that Albert has only two customers that day, one who buys a box of chocolates for £49 and one who buys chewing gum for £1. One of them pays with £50 note which Albert later discovers to be a forgery. Does it matter which customer gave Albert the forged note when calculating his loss? Again the answer is given on page 17-18..

MEDICINE ON THE FRINGE

Michael Heap

At this year’s QED meeting in Manchester (*note 1*), Michael Marshall received a roar of approval from his audience for his progress in tackling the absurdity of NHS spending on homeopathic treatment, which is estimated to be around £3M annually. As Project Director of the Good Thinking Society, Michael has written to all of the 211 clinical commissioning groups (CCGs) in England about their provision of funding for homeopathy. Most do not allocate any money for this form of alternative medicine and in the cases of some that do, the amounts involved are tiny (*is this supposed to be a joke? – Ed.*). Substantially more funding is provided in areas where there is a homeopathic hospital, such as in North

Somerset and South Gloucestershire and in some part of London (whose CCGs were unable to give a figure). One successful outcome of this project has been that the CCG in Liverpool has agreed to review its decision to allocate £30,000 a year to homeopathic treatment (*note 2*). This has come about by the Good Thinking Society’s obtaining legal advice and representation. This comes at a cost and **you are invited to donate online to this campaign** (*see note 3*). At the time of writing, the campaign is just £2,500 short of its £10,000 target.

Could the same success be achieved in the case of acupuncture? I doubt it. Courses of acupuncture are available for patients attending many NHS pain clinics and are undertaken

by medical staff employed there, sometimes at consultant level, who have trained in acupuncture. So, at least as far as pain relief is concerned, it’s pretty much embedded in the NHS

The actual number of NHS prescriptions for homeopathic remedies and their total cost have declined drastically in the last 20 years (*note 4*). It would be wonderful if all the money saved by this and by successfully campaigning to eliminate *all* funding for homeopathy were diverted to more effective and cost-efficient treatments. Unfortunately, this is not what real life is like. The NHS-funded homeopathic treatment that patients currently receive is obviously unnecessary on clinical grounds but it is unlikely that their doctors have *not* prescribed them

a conventional treatment that is necessary. So logically the patients don't need any conventional treatment in place of homeopathy (and if they insist on continuing with homeopathy they will have to pay for it themselves). I would bet, though, that their doctors will feel obliged to prescribe *something* in its place. And that 'something' might be as expensive or even more so. In medicine, money saved by eliminating waste may only be wasted on something else.

Indeed, only adhering to treatments that are 'evidence-based' (a concept that has tended to become oversimplified and overvalued – see *note 5*) does not by itself mean that billions of pounds of NHS money is released to fund other evidence-based treatments. More salient are the over-application of medicine, notably the conducting of tests and the prescribing of treatments - evidence-based or not - that are unnecessary and even harmful, and the diagnosing of everyday problems as medical illnesses (*notes 6 and 7*). (This is not a problem confined to the NHS in the UK; in fact it has been highlighted in particular in the USA, where medical care tends to be

over-inclusive and thus unduly expensive.) Most alarmingly, a recent study from the University of York has suggested that spending on over-priced drugs by the NHS 'does more harm than good' (*notes 8 and 9*).

Set against all of this, the funding of alternative medical treatment by the NHS appears relatively benign.

Set against all of this, the funding of alternative medical treatment by the NHS appears relatively benign. So, just as, for example, Ben Goldacre has exposed the iniquities of the alternative medicine industry and excoriated the pharmaceutical industry for its egregious practices, skeptics, for their own credibility if nothing else, should demonstrate their awareness of the flaws and shortcomings of conventional medical practice.

Notes

- 1.<https://qedcon.org/>; see also entry under 'Of Interest' in this issue.
- 2.<http://goodthinkingsociety.org/projects/nhs-homeopathy-legal-challenge/>

3.<https://www.justgiving.com/Good-Thinking-Society-Appeal/>

4.<http://www.nightingale-collaboration.org/news/172-the-further-decline-of-homeopathy-on-the-nhs.html>

5. 'Evidence-based medicine' is more complex than simply being informed by the results of clinical outcome trials, which may only provide limited and general guidance and may not be without flaws. It is about what the most effective and cost-efficient treatment is for an individual patient given his or her diagnosis, severity of symptoms and their duration, ability to tolerate likely side-effects, age, sex, past medical history, co-morbidity, likely future quality of life, etc., etc. See e.g. <http://www.bmj.com/content/348/bmj.g3725>.

6.<http://www.medpagetoday.com/MedPageTodayat10/LessIsMore/51756>

7.<http://www.bmj.com/too-much-medicine>

8.<http://www.york.ac.uk/media/che/documents/NICE%20Threshold%20Press%20Release%20190215.pdf>

9.<http://www.ft.com/cms/s/0/d00c4a02-b784-11e4-981d-00144feab7de.html#axzz3bMEtk6CK>

LANGUAGE ON THE FRINGE

Mark Newbrook

Grammar revisited

In the last two issues I have discussed the problems experienced by language-learners, non-mainstream writers on language and non-linguists generally in dealing with matters of grammar. It must be emphasised, however, that from a linguistic perspective all adult native speakers of a given language, however little they **consciously** know about grammar, are completely competent in **using** the grammar of that language in speech (and, if fully literate, in writing) – even though the **varieties** of the language which some of them use are (socially) deemed non-standard. This is, of course, contrary to the widespread prescriptivist folk-linguistic belief that non-standard

native-speaker usage (especially informal urban working-class usage) is simply 'bad' or 'wrong' and that its habitual users are incompetent in their first language. (Naturally, **foreign learners** may be less than fully competent in the use of grammar and in other aspects of their new language – but that is not the issue here.)

In fact, native speakers who use what prescriptivists might describe as 'bad grammar', involving forms such as *ain't* as in *She ain't going*, are using grammar no less than are speakers of Standard English. They are merely using the somewhat **different** grammar of their dialect. Such non-standard grammars are just as systematic as is 'proper English' (Standard English)

grammar; they are not haphazard. There are 'rules' (principles) which describe where *ain't* is or is not found used in the relevant varieties, just as there are 'rules' describing the Standard English use of *isn't* or *hasn't*.

Neither do such non-standard grammars represent a 'falling away' over time from the 'higher standards' supposedly displayed in more 'proper' usage. Many of their characteristic forms, especially (but not only) those found in conservative rural dialects, are in fact **older** than the standard equivalents. For example, dialectal *hoo* or *oo* ('she') is derived from the Old English equivalent form *hēo*, replaced by the novel form *she* in modern standard usage. And in **some** cases

dialect usage permits more precision of expression than does standard.

Of course, usage which is deemed non-standard **might** reasonably be discouraged **in some social contexts**. As I have remarked earlier, in modern conditions there is merit in having a standard variety, which has to be taught in schools and imposed in certain domains. But this does not have to involve the inaccurate denigration of non-standard usage – especially given that most of the features which distinguish Standard from non-standard English have come to be standard only by way of historical accident, not because of any genuine superiority.

Some otherwise astute non-linguists who critique mainstream linguistics and especially Chomskyan linguistics in respect of notions regarding grammar are in fact confused on this very set of issues. G.A. Wells seems to misinterpret Chomsky's descriptivist notion of grammaticality (which is largely shared with all contemporary linguists) as relating only to **standard** grammar. He even suggests that Chomsky believes that there are 'no rules for incorrect speech'. In a somewhat similar vein, the 'anti-linguist' Ronald Englefield argues that people can communicate without the benefit of any 'formal' grammar, and suggests (as does Wells) that – if Chomsky's view of the matter is correct – adult native speakers of a language who do not command the grammar of the relevant standard variety either have somehow **failed** to develop (pre-birth) the tendency to acquire grammar which Chomsky believes humans inherit, or **have** acquired grammar but have then 'lost' or suppressed it.

Wells and Englefield seem to have misunderstood what Chomsky means when he says that all normal human infants have access to a Universal Grammar (UG) enabling them to acquire the syntax and other aspects of their native languages very rapidly. As I have noted, the term *grammar* here (as elsewhere in linguistics) does not refer only to standard or formal grammar as taught in schools and

socially endorsed as 'good usage' (etc.); it also includes the grammar of informal and indeed of non-standard usage as used naturally by many native speakers of each language. Native speakers who systematically produce non-standard forms have simply acquired a **different** grammar. The idea that non-standard or informal usage somehow lacks grammar, while widespread among non-linguists, is folk-linguistic and does not stand up under careful examination. Regardless of whether or not Chomsky's specific theory of UG is correct, both Chomskyan and non-Chomskyan linguists fully accept this.

Native speakers who systematically produce non-standard forms have simply acquired a different grammar.

In my dialect!

In the 1960s, as Chomskyan ideas were becoming entrenched in much linguistic thought and practice (especially in the USA), Chomskyan linguists tended to support their specific theoretical claims with arguments based on their intuitions about what usage (often English usage) did and did not occur. These intuitions were typically based on the linguists' perception of their own usage (and that of those around them), not on any empirical surveys. But other linguists who read or heard the relevant papers would often find themselves in disagreement with these intuitions, and would dispute the validity of the arguments in question, reporting their own **conflicting** intuitions.

A common response to criticism of this kind was the addition of the rider 'in **my** dialect' to each such claim. The idea was that the statement about usage was correct for at least **some** native speakers, and that the conclusions of the associated arguments thus remained valid even if the intuitions of others (or indeed their actual usage) differed.

Of course, how far this position could really be sustained depended in

part on how sweeping the proposed conclusions were, and whether or not they purported to exclude some forms as **never** occurring. On the one hand, the fact that many American Mid-Westerners (including various prominent linguists) accept as normal the use of 'positive *anymore*' (as in *John smokes a lot anymore* = 'nowadays'; he didn't smoke much in the past) does indicate that this construction is **possible**, at least in some varieties of English – to the surprise of many English-speakers from elsewhere. But when American linguists made theoretical claims applying to all varieties of English (or even to all languages!) on the basis of their intuitions to the effect that constructions such as *I'll give it him* (as opposed to the synonymous constructions *I'll give it to him* and *I'll give him it*) do **not** and **could not** occur, they were met with a barrage of persuasive objections from linguists who were native speakers of Northern England varieties of English and regarded forms such as *I'll give it him* as wholly normal usage. Indeed, even within a sample of linguists from the **same** geographical and social background, individual intuitions were often found to vary, if not quite so dramatically.

The validity of the conclusions in question also depended, of course, on how far any given intuition was **accurate**. And in many cases the objections to sweeping Chomskyan claims about usage were clearly **correct**; the intuitions in question were frequently **inaccurate**. Corpora of data and the results of surveys often show that forms which (apparently) do not occur in the dialects spoken by specific linguists, such as *I'll give it him*, do indeed occur in other dialects. If correct at all, the intuitions that they do not occur apply only to certain varieties. Many American linguists simply do not know enough about British English, let alone more 'exotic' varieties, to have reliable intuitions about the grammar of English as a whole. Some American phonologists make similar mistakes about British

pronunciation, including even ‘BBC English’. So the rider ‘in **my** dialect’ was often necessary; but the strength of the conclusions drawn was thereby significantly reduced.

And in fact linguists of all kinds (to their embarrassment) are sometimes wrong even about their **own** usage, just like other native speakers; their perceptions are more strongly influenced by local (or personal) prejudices, or simply less reliable, than they would like to admit. A colleague once unselfconsciously proclaimed ‘I never use glottal stops’ – using a glottal stop (‘dropping the T’, as a layperson might call this phenomenon; the pronunciation is especially associated with Cockney) in the very word *glottal!*

Careful linguists, even in the Chomskyan paradigm, have now become more circumspect about such things! But even today some theoretically-committed linguists try to ‘wriggle out’ when caught relying too much on intuition – or when confronted with hitherto unfamiliar disconfirming data (remember my piece about Welsh word-order?).

Crazy about Sanskrit

When a known language is identified by a non-mainstream thinker as the *Ursprache* / ‘Proto-World’, the ultimate ancestor language of humanity, it is often a classical language highly regarded in the writer’s community for religious or similar reasons. A favourite is Sanskrit, the great classical language of Northern India and, as the vehicle of the Vedas and other such texts, the classical language of Hinduism worldwide.

When Sanskrit first came to the serious attention of Western linguists and its deep-time ‘genetic’ relationship with Greek, Latin etc. became clear, the notion of the Indo-European language ‘family’ began to develop (a key date is 1786). It was initially imagined that Sanskrit, ‘older’ than Greek or Latin and displaying archaic features and high levels of phonological and morphological systematicity, was especially close to

Proto-Indo-European, the proposed ancestor of the ‘family’.

This idea was soon superseded as Indo-European studies developed further during the 19th Century; Sanskrit is now regarded by linguists as an elaborated literary form of the North Indian branch of early Indo-European, which also included the ancestor of later ‘Indic’ languages such as modern Hindi. But the initial view remains popular with non-mainstream thinkers, especially but not only those with North Indian or (most of all) Hindu connections. The more ‘moderate’ such thinkers see Sanskrit as close to or identical with Proto-Indo-European; the more extreme see it as a world *Ursprache*.

David Oates, the originator of ‘Reverse Speech’, apparently believes that Sanskrit was the Ursprache....

Indeed, this has become almost a popular ‘myth’. Many non-linguists who would never seek to publish non-mainstream ideas have come to hold folk-linguistic views about Sanskrit similar to those outlined above. Most such people (unaware of Indo-European or of language ‘families’ generally) seem to regard Sanskrit as a general *Ursprache*. Although some 200 years out of date even in its moderate form as applying only to Indo-European, these ideas are very widely shared among disparate groups of thinkers: for example, David Oates, the originator of ‘Reverse Speech’, apparently believes that Sanskrit was the *Ursprache*, and two members of my local philosophy discussion group in Cumbria had regarded it as equivalent to Proto-Indo-European until I told them otherwise.

Another common error involves the idea that the *-skrit* in the word *Sanskrit* is connected with the Latin-derived English word *script*. Some people actually spell the word as *Sanscript* (I saw this recently on a panel in a Glasgow church where words meaning ‘peace’ were set out in several

identified languages). When questioned, some report that they have also assumed or imagined that the name includes the morpheme *san-* as in Spanish *San* = ‘saint’, and means ‘sacred script’ (because of the use of Sanskrit in the Hindu scriptures).

Sanskrit is, of course, a language and not a script (this crucial contrast is obscure to many non-linguists, and disastrous misconceptualisation ensues). The name of the abjad-alphabetic script usually used to write Sanskrit and other North Indian languages is *Devanagari* or *Nagari*. And the word *Sanskrit* itself originally means ‘elaborate’, as opposed to the term *Prakrit* (‘simple’) which is used of the ancient North Indian Indo-European spoken languages from which classical Sanskrit was developed.

Fun on Skeptical Humanities

I blog (not very frequently of late) on the American-based Skeptical Humanities web-site....

(<http://skepticalhumanities.com/>)

...where I am the ‘pet linguist’. Another contributor to this site is ‘J R Fibonacci’, whose extensive corpus of blogging is called ‘power of language’ / ‘partnering with reality’. JRF is well-informed on various matters and clearly regards himself as an important thinker on a number of subjects (normally considered largely unrelated) including medicine, general psychology and language.

However, JRF adopts a forthright ‘tone’ and approach very different from what prevails in empirical linguistics. In addition, his specific statements about language, where they are intelligible and accurate, are already familiar to linguists. Any useful insights which the material may possess are more likely to be philosophical in character. Unfortunately, even this is uncertain, chiefly because the discourse is often (in my view) obscure; it also seems to involve a radical general ontological stance which (here, at least) is only roughly sketched and not defended. In addition, JRF might attract more

serious attention if he adopted a less dogmatic and didactic style.

To exemplify: JRF claims at one point that language means nothing and never will mean anything. Subject to issues regarding how the term *nothing* is being used here, this viewpoint is, of course, contrary to prevailing opinion both popular and academic (the latter including both linguists and philosophers), and thus needs to be justified at this point. Indeed, it might be suggested that if language ‘means nothing’ it cannot itself be used to say anything useful. And, while – as is proclaimed here (albeit in somewhat strange wording) – language can be seen as ‘a sequence of codes for the directing of attention’, it is generally taken as obvious that language has other functions and aspects in addition to this.

Within language, JRF accepts that different words and letters are distinct. (The use of the term *letters* seems to betray a folk-linguistic starting-point; a writer with knowledge of linguistics would instead talk here primarily of phonemes.) But these words and letters are all seen as variations on ‘nothing’ (this raises the above-mentioned issues regarding this term); and, while they do possess meaning (this apparently contradicts what is said earlier), this supposedly arises only ‘through perception’.

In contrast, JRF’s overall stance on the relationship between language, thought and reality seems to place language closer to the ‘core’ than these specific comments might suggest. For example, concepts are identified as ‘linguistic formations’ arising ‘out of nothing’, which is ‘the capacity for linguistic formations to simply happen by themselves’. On this account, thought depends very heavily upon language, as proclaimed in the ‘Sapir-Whorf’ Hypothesis, not *vice versa*; and most thought which is ostensibly about non-linguistic issues boils down to considerations of linguistic meaning (a dramatic conclusion).

Like individual words and ‘letters’, each specific language is seen by JRF as distinct, ‘a specific set of distinct,

isolated formations’ – and as ‘finite’, in contrast with ‘language itself’ which is ‘infinite’; it is not clear how the terms *finite* and especially *infinite* are to be understood here. And boundaries between languages are, again, seen as different manifestations of ‘nothing’. But, as with much of JRF’s material, I find the conceptualising obscure at this point, and it is difficult to comment helpfully.

One of JRF’s principal (mainly) non-linguistic themes is the aetiology of cancer; he dogmatically presents his own theory on the disease and describes the mainstream position as unscientific ‘demon-worship’.

JRF claims at one point that language means nothing and never will mean anything.

JRF also (apparently) regards the historical books of the Old Testament, including *Genesis* and *Exodus*, as uncontroversially and literally true; and in addition he is something of a conspiracy theorist, identifying the ‘official’ use of language and much mainstream intellectual activity as deliberate obfuscation. And (like some other such thinkers) he often appears reluctant to accept that any *prima facie* arguable standpoint is a genuinely distinct rival to his own as opposed to a less accurate re-formulation of same.

More fun things

When I began visiting Barrow in Furness some nine years ago, I was delighted at the ready acceptance I found in the friendly ship-building town at the south end of the English Lake District. Despite coming from quite the wrong part of the North-West, I have a background in rugby league (a keen follower since 1972; the founding secretary of the Oxford and Reading University clubs; etc.), and I rapidly became a supporter of the town professional team and of the local amateur game. But one thing took some Barrovian ‘leaguies’ by surprise: my middle-class, educated Wirralian accent, which really stood out in this northern working-class context. One

Barrow lady said to me: ‘I can’t get over the fact that you’re interested in rugby **league!** You’ve got **such** a rugby **union** accent!’ Even in universities (where league has been played only since 1967), most leaguies have fairly marked northern accents. And in England it is the rugby union version of the game which is stereotypically associated with upper- and middle-class people – although, in ‘non-league’ areas especially, union is in fact followed by many people who use broad northern pronunciation, such as the (late) well-known Cestrian demolition expert ‘Blaster’ Bates.

These encounters in Barrow reminded me of my experiences in the mid-1970s when I listened to recordings of myself speaking on local radio about the foundation of new amateur rugby league clubs at Oxford and on the Wirral. On BBC Radio Oxford my speech shifted, quite spontaneously, further towards ‘Scouse’ than at any other point in my life; on Radio Merseyside, in contrast, I sounded very ‘Oxonian’. While actually speaking, I had not been aware of this. Was I unconsciously reacting **against** the prevailing local ethos, in each case?

On a very different front: the non-mainstream Indian author P.N. Oak (mentioned here before) claims, on the basis of the unusually systematic Sanskrit, that all complex words in all languages are highly systematic in origin (and derived from Sanskrit; Oak holds that all human beings were once Sanskrit-speaking Hindus [see above]). For instance, the word *Christianity* cannot be etymologically related to the name *Christ*, because the genuine English names of religions must **all** end in *-ism*. The form ‘should’ thus be *Christism*. The word *Christianity*, he says, is really associated with the Hindu divinity Krishna.

Another case where homophones have near-opposite meanings: **raising** a city is building it, **razing** it is demolishing it.

Another amusing error on ‘Dr Dictionary’ (22/9/14): *tantivy* is identified as an adverb (‘at full gallop’) or an adjective (‘swift’, ‘rapid’) – but then exemplified as a noun (*He kicked it up another gear, to a tantivy*).

REVIEWS AND COMMENTARIES

The Language Myth: Why Language is not an Instinct by Vyvyan Evans: Cambridge University Press, 2014, pp. xi + 304. ISBN 9781107619753.

Reviewed by Mark Newbrook

This book¹ deals with one of the most important issues where a degree of skepticism about a major section of the **mainstream** of a discipline – in this case linguistics – appears justified. (For a broader perspective on this general issue, see Chapter 12 of my 2013 book *Strange Linguistics*.)

The American Noam Chomsky made a huge impact on the linguistic world when he burst into prominence at the age of 29 in 1957. Ever since, he has been the most famous linguist in the world (not least because of the prominence of his radical political views). Even among younger contemporary linguists, the best known outside the academy is the Canadian Steven Pinker, a member of the ‘Chomskyan school’ of linguists who agrees in most respects with his mentor. In fact, many people with a passing knowledge of linguistics, especially in the United States, are hardly aware of the existence of major non-Chomskyan (still less anti-Chomskyan) ‘schools’ within the discipline. Chomskyan linguists (and their allies such as the philosopher Jerry Fodor, discussed in the book now under review) have been adept at presenting their ideas as constituting the current scholarly consensus.²

Chomskyan linguistics, involves, very centrally, the theory of linguistic universals and Universal Grammar (UG). These notions refer to an alleged ‘bundle’ of deep/abstract universal cross-linguistic features, especially in grammar but also in phonology and other aspects of language, which supposedly arise from the genetically-inherited, species-specific and very largely species-uniform mental faculty which, as Chomskians hold, humans possess natively, innately or instinctively (all three terms are used). It is claimed that, in the absence of

UG, human children would be unable to identify and acquire the grammars of their first languages, given the allegedly ‘degenerate’ and under-determining character of the language data with which they are actually confronted in infancy.

In opposition, some linguists have argued that the linguistic (and other) evidence actually supports the contrary view that we acquire language through our general intelligence as employed in dealing with experience, and that UG does not exist. On this account, such universal abstract features of human language as do exist are generated by, for example, general psychological constraints (or perhaps in some cases through descent from a single common pre-historic ancestor language, if such existed) – and the ‘surface’ diversity found in most other features of languages reflects deep **dissimilarities**. Prominent linguists who have argued in this vein against Chomskyan ‘nativism’ or aspects thereof include Nicholas Evans & Stephen Levinson, Daniel Everett, Roy Harris, Peter Matthews, Ian Robinson and Geoffrey Sampson.

The American Noam Chomsky made a huge impact on the linguistic world when he burst into prominence at the age of 29 in 1957.

Vyvyan Evans is Professor of Linguistics at the University of Bangor in Wales, and with this book he (Vyvyan is a male name, contrary to the assumption made by one reviewer) becomes a member of this band. Though he refers usefully to his anti-Chomskyan predecessors, it is arguable that he might have made **more** use of the points raised by Matthews – and in

particular of those discussed by Sampson, whose 2005 book *The ‘Language Instinct’ Debate* is, like Evans’ work, in part a response to Pinker’s *The Language Instinct* of 1994 (as the three book-titles suggest). But this is an excellent book in its own terms, and anyone who has been led to regard Chomskyanism as an undisputed mainstream orthodoxy regarding the nature of human language may look here for a strong case pointing in quite other directions.³

The book begins with an introduction to the issue (pp. 1-5). Here Evans acknowledges, of course, that human beings (and to our knowledge only human beings – though see below) are born with the ability to learn the grammatical and other patterns of a first language or languages, and with the universal tendency to do so when provided with the stimulus of the usage around them. But this is not equivalent to the much more specific and restrictive theory of abstract cross-linguistic constraints collectively constituting UG – which, incidentally, has been ‘conventional wisdom’ (p. 2) **only** since Chomsky’s proposals of the mid-1960s. And Evans (following earlier anti-Chomskyan work) proclaims at this early stage his contrary view that in fact language acquisition involves, principally, the language input received by infants (which is **not** ‘degenerate’) and the exercise of general intelligence and in particular of the child’s burgeoning species-specific ‘cultural intelligence’, rather than any dedicated Chomsky-style innate ‘language/grammar acquisition module’. This view, he says (p. 4) is supported by vast and growing amounts of data not only from linguistics (especially from studies of child language acquisition, naturally) but also from the other cognitive and

communicative sciences. Chomsky himself (see for instance p. 256) notoriously downplays the communicative function of language, which most non-Chomskyan linguists (and most other people!) regard as central; and Chomskyan as a group are so heavily 'rationalistic' in their approach to these matters that they often seem to pay too little attention to disconfirming empirical evidence (p. 14) or else deal with it in unconvincing ways (see below). But they present themselves as committed in principle to a scientific approach to linguistics, and any genuinely scientific theory must stand or fall precisely on its 'fit' with such evidence (see below on Chapter 5).

Evans continues Chapter 1 with a brief but helpful introduction to linguistics *per se* (pp. 5-13). He then outlines the content of his book (pp. 13-19), refutes any suggestion that he might be attacking an extreme and already outdated 'straw man' rather than a still widely-accepted position (pp. 19-22), and points out that the Chomskyan view of language (seen as deeply species-specific, altogether unique and not grounded in its familiar communicative function) makes for an unconvincing account of its evolutionary origins, as Chomsky himself has (almost!) admitted on occasion (pp. 22-26). See below on Chapter 2; also pp. 256-258 at the very end of the book, where Evans points out that even Pinker for his part diverges from Chomsky on this particular issue. Non-linguists who have also found Chomsky's stance egregiously weak in this context – it essentially amounts to saying: 'What else **could** explain the existence of language?' – include Richard Dawkins (see p. 19).

The details of Evans' case are rehearsed across the following six chapters: (2) 'Is human language unrelated to animal communication systems?'; (3) 'Are there language universals?'; (4) 'Is language innate?' (in Chomsky's 'strong' sense of the term involving UG); (5) 'Is language a distinct module in the mind?'; (6) 'Is

there a universal *Mentalese*?'; (7) 'Is thought independent of language?'. In Chapter 8 he sums up his case against Chomsky and his own position, and discusses some associated issues. There are also useful excursions, notably on language change (pp. 79-91) and the issue of why there are so many languages (pp. 252-256).

It is impossible in the space available here to appraise all of Evans' material adequately, and I will confine myself to making observations on some key points and issues.

Even British English usage contains features which some Chomskyan have identified as impossible.

In Chapter 2, Evans compares human language with what is known of animal communication systems. Essentially, one asks: how much overlap is there in respect of the most important and basic features, much or not much? The relevant data are very variously interpreted, partly because of deep-set theoretical differences, and it appears that few commentators of either persuasion are ever induced to change their minds (by rational argument). But the data do not clearly support the Chomskyan answer ('not much'; see above on Chomsky's associated problems with the evolution of language). And – while acknowledging the superior flexibility of human language – Evans is able to argue quite convincingly that grammatical structure and even some of the basic 'design features' of human language (pp. 46-47) are in fact found in some animal communication systems (pp. 45-63)⁴ – and that some animal systems display in addition socio-cultural features such as individual, dialectal and stylistic variation, 'speech acts', etc. (pp. 36-39). He also outlines a non-Chomskyan account of 'feral children' (shared with Sampson and others) which explains their failure to acquire language fully (even after 'discovery') wholly in terms of the obvious need for exposure

to speech at a very early age (p. 35). And he is (predictably?) much more optimistic/positive than are Chomskyan about the success of (some) attempts to teach primates important aspects of human language (pp. 41-45).

In Chapter 3 Evans turns from the alleged uniqueness of human language to focus upon the Chomskyan belief in language universals, which he opposes as conflicting with the cross-linguistic diversity which is apparent in the world (see above) and which he himself emphasises. The data supporting the Chomskyan position are, again, frequently less than impressive. Because of their now established belief in universals, Chomskyan have often relied excessively in their theorising upon data (and upon already contentious abstract analyses of same) drawn from a small set of languages, notably (American) English (though see *note 1*). Because of the inevitable financial constraints, this has at times limited their research on a wider range of languages which might very well display disconfirming data. Even British English usage contains features which some Chomskyan have identified as impossible, such as Northern English English *I'll give it him*.⁵ Throughout this chapter – and citing in his support other anti-Chomskyan linguists such as Evans & Levinson (pp. 69-70) – Evans argues that Chomsky, Pinker (see for example p. 69) and other such linguists have materially overstated the cross-linguistic uniformity of basic grammatical and phonological structures (even in respect of some relatively abstract constraints). And more flexible 'Neo-Chomskyan' positions of various kinds (for instance, the view that each language merely 'selects' from a range of possible universal features and eschews others; see pp. 78-79) tend towards unfalsifiability, and in most cases cannot be taken seriously in this context (see also below on pp. 107-108).

Evans does, however, overstate his own case at times in this chapter, for instance on pp. 74-75 where he suggests that totally free word order is cross-linguistically widespread. And his critique of the (non-Chomskyan) notion of 'Proto-World' on pp. 88-91 is inadequately argued.

In Chapter 4, Evans discusses the issue of how far language is innate in Chomsky's 'strong' sense of the term involving UG (see above). He appears more than fair in setting out the Chomskyan nativist position (see for example pp. 95-98), but he points out in comment that language is (very obviously) **not** innate after the manner of a propensity which can develop in isolation, such as a spider's web-spinning ability (pp. 99-100); and he argues that in fact the language input received by infants is **not** 'degenerate' (see above), that infants make great use of this exposure to speech (which they need; see above on feral children), and in particular that the data received (while overt 'correction' of infant usage is largely absent) contains much readily interpreted **negative** evidence as to what usage does **not** occur and as to how newly-learned linguistic items (words, etc.) are **not** used as well as how they **are** used (pp. 98-105). In addition, Evans argues that neurobiological information (not available to the early Chomsky but very much available now) suggests that children are born with powerful general learning skills which can readily be applied to language data and which obviate the need for any specific innate language 'module(s)' (pp. 105-109). Data from studies of language acquisition appear to point in the same direction (pp. 109-130). Evans slightly overstates his case in places in this chapter, but not with any disastrous upshots.

In Chapter 5, Evans rehearses the evidence against the Chomskyan theory of a 'language module' or a more specific 'grammar module' in the human mind/brain. He regards this model as too heavily reliant upon an analogy with computers (a point initially raised on p. 18) and, again, as

not supported by the data. He notes, indeed, that many cognitive scientists outside linguistics are nowadays surprised to learn that such a major 'school' of linguistic thought still adheres, despite what they see as overwhelming counter-evidence, to a modular analysis of language and of grammar in particular (p. 140).

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Some of the evidence in question here involves the suggestion that certain specific parts of brain-areas, and certain genes and genetic mutations, were crucial for the origin of human language and remain crucial today. The best-known such feature is a mutation affecting the gene FOXP2. Some Chomskians have invoked evidence involving abnormal psychology in support of their interpretation of the 'modular', specifically linguistic significance of FOXP2 (pp. 138-140). However, there are other interpretations of the data in question. For example, Sampson interprets the data involving the British 'KE' family (many of whom struggled with language all their lives) in a very different way from Pinker and other Chomskians, regarding the FOXP2 mutation as generating below-average general intelligence and thus causing difficulties with language but with much else besides; he denies that the members of KE are of normal intelligence in other respects. Evans (pp. 143-144) essentially accepts Sampson's account of this case. And, while some other types of case, involving for example 'Williams Syndrome', exhibit considerable complexity in respect of the relationship between linguistic ability and other aspects of intelligence, here too the data frequently appear to favour a non-Chomskyan account (pp. 139, 144-145).

Those who take Evans' arguments seriously, but are still persuaded (for whatever reason) that the human mind is organised in a modular way, might propose a 'compromise' position according to which the language module is real but is 'looser' in character than is suggested by Chomsky, 'permitting' the many phonological and grammatical patterns which Chomskians, to their embarrassment, have mistakenly identified as impossible, such as Northern English English *I'll give it him* (see above). On pp. 107-108 (in Chapter 4), Evans refers to this notion as 'light-touch UG'. While such a 'midway' position may appear attractive, neither 'side' in the debate appears likely to be convinced of it, in part because it might prove difficult to identify precise but non-arbitrary/well-motivated limits for any 'looser', more inclusive version of the (necessarily cross-linguistic) language module (Evans observes that even as things are there is rather little agreement among Chomskians on the specifics of UG). The more usual Chomskyan reaction to seriously challenging data is instead to develop novel abstract (often counter-intuitive) analyses which preserve their own theoretical stance with its 'heavy-touch UG' – often at the fatal cost of unfalsifiability. Indeed, UG as described by Chomskians is mostly highly abstract in character, partly grounded in already contentious theorising, and difficult to discern reliably in generally-agreed cross-linguistic analyses of 'surface' linguistic patterning.

In Chapter 6 Evans starts (p. 161; more on pp. 164-165) by pointing out that (as everyone agrees) thought and language are not the very same thing, whatever the relationship between them may be; and he goes on to discuss in this context the specific Chomskyan concept of 'Mentalese', which again relates to a computational image of the human mind. Here he joins Matthews, Sampson and other earlier critics of Chomsky in finding the notion of Mentalese unhelpful. Mentalese would be a fantastically complex inherited

mental framework, a ‘language of thought’, fully-fledged in structural terms and encompassing the ability to draw inferences and such, but (inevitably) devoid of specific meanings and lacking any language-specific distinctions in itself – while **allowing** for all such distinctions, and for all the ambiguities and subtleties of grammatical and word-level meaning which arise or might arise in any language. Chomskyans argue that without such a framework one could not learn one’s real first language, because a multi-generational infinite regress of learning experiences would then inevitably be involved (p. 163); but (as noted) it is far from clear that this is so. Some of the arguments on these issues are philosophical rather than linguistic in character, and indeed one key figure in the historical development of this argument is John Searle, whose own work straddles the boundary between these disciplines. Evans concludes that the theory of Mentalese is *prima facie* implausible and is contrary to what we (now) know of how we learn languages and interact with the world. (See also *note 2* on Pinker’s dismissal of some criticisms (reported here) of the concept of Mentalese.)⁶

Finally, in Chapter 7, Evans addresses the question of the relationship between language and the mind (taking up points made in Chapter 6 about thinking without language; see for instance pp. 161, 164-165). Much of this discussion involves the contrast between, on the one hand, Chomskyan linguistics with its focus upon language as largely grounded in pre-existing species-uniform mental entities and, on the other, the ‘Sapir-Whorf Hypothesis’ (or often some exaggeratedly deterministic interpretations of same), according to which a) languages genuinely vary a great deal in structure and b) one’s thought patterns are very heavily grounded in the patterns of one’s first language. The SWH itself has been the subject of an extensive literature, and the views of linguists on this complex set of issues vary greatly.

One does not have to be a Chomskyan to hold that language influences thought less, or that thought varies (much) less between language-communities, than a ‘strong Whorfian’ would claim.⁷

I recommend his book to anyone with an interest in language who is willing to grapple with the at times quite demanding material.

Like some other critical historians of his discipline, Evans exemplifies the debates regarding these matters principally with the important case of colour-terms (pp. 198-217) – although he also discusses grammatical gender (pp. 217-221), terms relating to time and space (pp. 221-228) and sundry individual examples. As far as colour is concerned, Evans concludes, after a serious examination taking into account recent as well as older work, that there are indeed (moderate) ‘Whorfian’ effects involving links between linguistic and cognitive structures, and that the cross-linguistic patterning of the linguistic structures in question does not support a Chomskyan interpretation but rather exhibits considerable (deep-level) variation.

Despite his comprehensive coverage of the case, there are points against Chomsky which Evans omits or underplays, for instance the at times excessive (and sociolinguistically/methodologically naïve) Chomskyan reliance upon the intuitions of native-speakers about what usage is or is not found in their own varieties. Ordinary laypersons and even linguists (to their embarrassment) are sometimes wrong about their own usage, for various reasons.

I myself find Evans’ thrust generally persuasive; and I recommend his book to anyone with an interest in language who is willing to grapple with the at times quite demanding material.

Notes

1. The book has already had a number of reviews, notably one by Noel Rooney (*Fortean Times* 322, 2014, p. 58) which some skeptics may have seen. Three years ago Rooney appraised Stan Hall’s *Savage Genesis: The Missing Page* in *FT*; in reviewing that same book in this forum (*Skeptical Adversaria* 1, 2012, pp. 6-7), I commented upon Rooney’s review – in which he had very little indeed to say about the crucial historical-linguistic component of Hall’s work, giving the impression that he might not regard himself as qualified to comment on this area. But Rooney is in fact described as a ‘poet and essayist’ with wide interests, and at times here he seems to identify as a linguist: ‘I grew up with Chomsky’s theories of language ... I and the linguistic world at large accepted Chomsky’s claims’. This last remark in particular materially overstates the degree to which Chomskyanism ‘holds sway’, arguably suggesting a somewhat narrow exposure to linguistic thought (see also *note 3*). However, most of Rooney’s specific points about Chomsky and about Evans’ book are well made (although some are again exaggerated or unsupported: Chomsky does not rely upon data from English alone **quite** as much as is suggested; and Rooney’s non-specific critiques of Evans’ arguments involving linguistic diversity and of his grammatical analyses appear overstated, although there certainly is a scatter of exaggerations and errors of detail in the book – and at times a degree of exaggerated dogmatism). And Rooney is correct in pointing out that – while much of the criticism of Chomskyanism in this book clearly holds up – Evans’ own account of language acquisition (like that of Sampson, I add) requires a considerable degree of ‘fleshing-out’.

2. Indeed, while his views have, naturally, changed somewhat over the decades, Chomsky’s early work is sometimes treated almost as a revelation of truth by his less critical followers. There is also a tendency for

Chomskyans not to take well-informed opponents seriously and indeed to ridicule them – and to erect and then attack anti-Chomskyan ‘straw men’ in an arguably biased manner (see for instance pp. 170-171 of this present book on Pinker’s disingenuous dismissal of some objections to ‘Mentalese’).

3. A major problem for linguistics is the relative lack of consensus in the discipline and how this is handled. There are many competing ‘schools’, ‘paradigms’ and ‘frameworks’, differing from each other not only on general issues such as nativism but also on such fundamental and basic specific issues as, for instance, the ‘true’ or most insightful grammatical analysis of sentences as straightforward as *Mark drank the beer* in a language as well-described as English. Professional linguists have not been conspicuously effective in dealing with this problem. Some seem to adopt a quasi-relativist view on which the issue is (perhaps) acknowledged but is not presented as truly problematic, even where the different ‘paradigms’ appear to be offering incompatible analyses of the very same aspects of the matters in question. Others simply uphold their

own ‘paradigm’ dogmatically; differences **within** the ‘paradigm’ are discussed, but its basics are left unchallenged. Limited interest is shown in the question of how far the core ‘assumptions’ upheld by a given group of linguists might actually prove demonstrably **preferable** to alternative ideas. Books such as those written by Evans and the other scholars listed here may help to remedy this situation. (See Chapter 12 of my 2013 book *Strange Linguistics*.)

4. These include the structurally crucial property of ‘recursion’ (as exemplified in the deeper and deeper ‘embedding’ of relative clauses with *that* in ‘This Is The House That Jack Built’; see pp. 32-34). Evans does **not**, however, discuss another, even more central design feature of human language, its ‘double articulation’ into phonemes and morphemes, which to my knowledge has **not** been shown to occur in animal communication. On the other hand, Chomskyans themselves refer too seldom to this property of language in their own discussions of these issues.

5. Another example involves the ‘Trace Theory’ of syntax, popular in the late 1970s: theoretically important

restrictions were posited in respect of the use of *wanna* (replacing *want to*) which are disproved by some **American** English usage such as *Who do you wanna win the election?*

6. In this section (pp. 172-175) Evans raises the important and far from irrelevant question of the Chomskyan notion of grammaticality, which has been challenged in various respects by other non-Chomskyan linguists and also by amateur critics of the discipline such as David Kozubei. Evans’ own critique of Chomsky at this point, which involves a degree of blurring of the syntax/semantics boundary and a focus upon the multiple senses in which words may be used, seems to me to be slightly (though only slightly) overstated. Regrettably, I must refrain here from discussing this particular set of issues further, because of space limitations; but see Chapter 12 of my 2013 book *Strange Linguistics*.

7. See for instance the 2014 book *The Language Hoax: Why the World Looks the Same in any Language*, by John McWhorter.

ANNOUNCEMENTS

THE EUROPEAN SCENE

ASKE is a member of the European Council for Skeptical Organisations. It has an Internet Forum on which you can read comments on sceptical issues from contributors and post your own. To access this, log on to the ECSO website (below).

Contact details for ECSO are:

Address: Arheilger Weg 11, 64380 Roßdorf, Germany

Tel.: +49 6154/695021

Fax: +49 6154/695022

Website: <http://www.ecso.org/>

Via the website you can access articles, news, and commentary on a range of topics of interest to sceptics.

The 16th European Sceptics Congress

See announcement on the front cover.

<http://euroscepticscon.org/>

The AAHEA report on language learning through hypnosis, 23.5.15

This article, by the Association for the Advancement of Applied and Experimental Hypnosis in Spain, concerns a programme entitled ‘Equipo de Investigación: Vendedores de Milagros’ (‘Investigative Team: Miracle Sellers’), which appeared on Spanish television (Channel 6) and called into question educational programs that claim to teach languages

effortlessly through hypnosis. The article states, ‘Because the TV program did not interview any professionals who had formal academic and specialised in hypnosis qualifications, (*the AAHEA*) would like to clarify some questions about hypnosis and language learning’.

See the full article (in English) at: <http://www.aahea.net/the-aahea-report-on-language-learning-through-hypnosis/>

OF INTEREST

SCEPTICISM, SCIENCE AND RATIONALITY (GENERAL)

Sense About Science and Ask for Evidence

Be sure to keep visiting the Sense About Science website at:

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

...and Ask for Evidence at:

<http://askforevidence.org/index>

Information on their activities is given in this section under the relevant headings.

Chris French at Reddit.com

Chris French has been interviewed (by listeners) for the *New Reddit Journal of Science*. The transcript can be found at the website below. Listeners asked questions and made comments on a wide range of topics of interest to skeptics, especially sleep paralysis and paranormal experiences.

https://www.reddit.com/r/science/comments/3bi3d7/science_ama_series_im_professor_chris_french/

Good Thinking Society

Make sure that you are on the Newsletter email list of the Good Thinking Society by signing up at:

<http://goodthinkingsociety.us11.list-manage1.com/subscribe?u=1bf89c6f4a53022db2659f074&id=82f6c41d44>

PracticalSkepticism.com

Sharon Hill, founder and editor of DoubtfulNews.com and advocate for science and public understanding, (<http://doubtfulnews.com/>) announces the launch of PracticalSkepticism.com, an outreach and education outlet for those new to the principles and value of everyday skepticism.

<https://practicalskepticism.wordpress.com/>

Replicability of the results of scientific research

The Academy of Medical Sciences, jointly with the BBSRC, MRC and Wellcome Trust, held a symposium on 1-2 April 2015 'to explore the challenges and opportunities for

improving the reproducibility and reliability of biomedical research in the UK'.

<http://www.acmedsci.ac.uk/policy/policy-projects/reproducibility-and-reliability-of-biomedical-research/>

For comments on the symposium see, for example, Richard Horton's piece in the *Lancet* (beginning 'A lot of what is published is incorrect') at:

<http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2815%2960696-1/fulltext>

Also see 'Replicability of psychological research findings' under Psychology and Psychiatry' below.

GM crops

Rothamsted GM Wheat Trial

Huw Jones, one of the scientists involved in the above study, has written to Sense About Science, thanking them for their support in the face of threats of vandalism.

The study has now been published in *Scientific Reports*, June 2015: 'The first crop plant genetically engineered to release an insect pheromone for defence' by J.A. Toby et al. at:

<http://www.nature.com/srep/2015/150625/srep11183/full/srep11183.html>

and the researchers have answered some questions in here:

<http://www.rothamsted.ac.uk/our-science/rothamsted-gm-wheat-trial-%E2%80%93-results-are-published-25th-june-2015>

New GM cereal crop

A genetically-modified cereal crop that produces fish oil in its seeds has been grown successfully for the first time in Britain, scientists have announced.

<http://www.independent.co.uk/news/science/new-gm-cereal-crop-produces-fish-oil-in-its-seeds-10372772.html>

False claims by opponents

Donors to one of Britain's largest humanitarian aid charities (ActionAid) have been unwittingly funding an aggressive anti-GM food campaign in Africa that misleadingly warns farmers that eating the crops could give them cancer.

<http://www.independent.co.uk/news/world/actionaid-the-charity-spreading-groundless-fears-over-gm-10126504.html>

No increase in suicide rate of Indian farmers because of GM crops

According to the website *The Conversation*, some years ago India banned the use of GM crops partly from the belief that the rate of suicide among farmers had increased in cotton-growing states since GM (Bt) cotton was introduced in 2002. Anti-GM campaigns pointed to the costs of seeds and the fact that a crop failure can ruin farmers, who then turn to suicide'.

Indeed, in November 2008 *Mail Online* announced that 125,000 farmers had taken their own life and Prince Charles claimed that the issue of GM had become a 'global moral question' - and the time had come to end its unstoppable march. 'Speaking by video link to a conference in the Indian capital, Delhi, he condemned "the truly appalling and tragic rate of small farmer suicides in India, stemming... from the failure of many GM crop varieties"'. It was announced that he has set up a charity, the Bhumi Vardaan Foundation (to promote organic farming in the region.

<http://www.dailymail.co.uk/news/article-1082559/The-GM-genocide-Thousands-Indian-farmers-committing-suicide-using-genetically-modified-crops.html>

But, according to *The Conversation* 'The evidence indicates that **GM farming does not lead to higher suicide rates**. In six out of the nine cotton-growing states, the suicide rate for males who did not work on farms was higher than for farmers. Also in 2001 (before Bt cotton was introduced) the suicide rate was 31.7 per 100,000 and in 2011 the corresponding estimate was 29.3 - only a minor difference'.

Moreover, 'Bt cotton has increased yields in all cotton-growing states except Punjab, and has reduced pesticide costs'.

<http://theconversation.com/hard-evidence-does-gm-cotton-lead-to-farmer-suicide-in-india-24045>

MEDICINE (GENERAL)

Publication of medical trials

‘Why a campaign to make medical studies public will help the global poor’ by Caroline Fiennes, Director of Giving Evidence.

<http://www.thelifeyoucansave.org/Blog/ID/187/Why-a-campaign-to-make-medical-studies-public-will-help-the-global-poor>

Publication bias

‘Results from clinical studies are an essential factor determining clinical decision making. It is therefore important that the results of all studies are presented in an unbiased and easily accessible manner.’

The OPEN project (‘To *O*vercome failure to *P*ublish *n*egative fi*N*dings’) is bringing together key opinion leaders from across Europe to address this problem.

<http://www.open-project.eu/welcome>

Big Pharma

Video of Ben Goldacre on his campaign to stop drug companies burying the results of their clinical trials.

<http://mobile.abc.net.au/news/2015-04-16/lethal-secrets/6399226>

Also see Dr Goldacre’s Editorial in *British Medical Journal*: ‘How medicine is broken, and how we can fix it’ at:

<http://www.bmj.com/content/350/bmj.h3397.full?ijkey=2mYjSgnGBIAGkOP&keytype=ref>

Mistrust of doctors and medical scientists

Dame Sally Davies, Chief Medical Officer, has called for a review of medicines to restore public trust, ‘Recent controversies over the use of medicines have damaged faith in the way research is carried out and presented.’

<http://www.bbc.co.uk/news/health-33127672>

Vaccine scare story

From Sense About Science:

‘On Sunday 31st May 2015 the Independent on Sunday’s front page story, and articles in The Daily Mail on Monday 1st June 2015 and Tuesday 2nd June 2015, warned about possible dangerous side effects of the human papillomavirus (HPV) vaccine. The Independent on Sunday article said “Shock new Freedom of Information figures show how thousands of girls have suffered serious symptoms after routine HPV injection” and was based on the number of side effects reported to the UK’s Medicines and Healthcare Products Regulatory Agency (MHRA) following routine HPV vaccinations. The article claimed that a recent study showed that chronic pain conditions, such as fibromyalgia and postural orthostatic tachycardia syndrome (POTS), “are more frequent after HPV vaccination”. In fact the study merely presented a hypothesis based on case reports.’ See more at:

<http://www.senseaboutscience.org/for-the-record.php/192/scientists-respond-to-quothealth-fears-over-school-cancer-jabquot-headlines#sthash.REpe8YRC.dpuf>

Drinking water myth

‘Drink eight glasses of water a day? Don’t swallow it! The truth about one of the most persistent health myth’ by Tom Chivers.

<http://www.spectator.co.uk/health/opinion-health/bad-medicine/9518702/drink-eight-glasses-of-water-a-day-dont-swallow-it/>

(A recent feature in the *Times* [date lost] reported that the trendy new water drink ‘Aquaçia’ is no more beneficial than water from a tap. Also on the subject of water, according to Mark Porter, the *Times* doctor, ‘The average person requires about 2.5 litres (4½ pints) a day, a litre of which is “hidden” in food. Almost any drink counts for the rest except alcohol and strong coffee’. Furthermore, according to the University of Nottingham, ‘more than 160g of oil and seven litres of water are required to make a single litre of bottled water’. Five billion

plastic bottles of water are consumed each year, and only a third are recycled’.

Dieting

‘I fooled millions into thinking chocolate helps weight loss. Here’s how.’

<http://io9.com/i-fooled-millions-into-thinking-chocolate-helps-weight-1707251800>

‘Healthy foods’ exposed

Australian Damon Gameau’s film *That Sugar Film* exposes the myths of the health benefits of foods plugged as ‘low fat’.

<http://news.nationalpost.com/arts/movies/that-sugar-film-review>

Manuka honey

An investigation into the supposed benefits of manuka honey (the expensive health food of celebrities) was recently conducted by pupils at Gillespie Primary School in Islington, London. ‘It has been described as Britain’s first proper randomised controlled trial’ of manuka honey and, according to the school’s scientist in residence, Carole Kenrick, was prompted by questions from a parent...’ The outcome? ‘Manuka honey did not make you feel better.’

<http://www.stuff.co.nz/life-style/food-wine/food-news/69159794/manuka-honey-save-it-for-your-toast>

Alternative medicine: General

The Nightingale Collaboration

Please visit the Nightingale Collaboration website for an update on: information on the (further) decline of homeopathy in the NHS; the status of the Complementary and Natural Healthcare Council; and a successful complaint against an advertisement by Water for Health Ltd in the December 2014 and January 2015 issues of *What the Doctors don’t Tell You* and the advertiser’s website.

If you do not already do so, why not sign up for free delivery of their electronic newsletter? At:

<http://www.nightingale-collaboration.org/>

Review of 'A Scientist in Wonderland'

Read Maria MacLachlan's review of Edzard Ernst's book *A Scientist in Wonderland* – plus the posted comments.

<http://www.skepticat.org/2015/04/a-scientist-in-wonderland/>

Campaign against Wikipedia's reporting of alternative medicine

'Wikipedia is on a misinformation campaign against alternative health and the healing arts. The public needs to know it.' So says the author of a forthcoming book *Unbiased: The Truth about the Healing Arts on Wikipedia*.

<https://www.kickstarter.com/projects/unbiased/unbiased-the-truth-about-the-healing-arts-on-wikip>

Herbal medicine

The UK Government's report on the statutory regulation of herbalists was published on 26.3.15. They will not be statutorily regulated.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/417768/Report_on_Regulation_of_Herbal_Medicines_and_Practitioners.pdf

The decision was taken despite lobbying for the industry from Prince Charles:

<http://www.telegraph.co.uk/news/health/news/11500275/Herbal-doctors-will-not-be-regulated-despite-pleas-from-Prince-Charles.html>

See also Edzard Ernst's blog post: 'Once again: the regulation of nonsense will generate nonsense – the case of UK herbalists'.

<http://edzardernst.com/2015/03/once-again-the-regulation-of-nonsense-will-generate-nonsense-the-case-of-uk-herbalists/>

Homeopathy

Campaign against NHS funding

From Michael Marshall ('Marsh'); see also 'Medicine on the Fringe' in this issue:

'I believe some ASKE and ECSO members may be interested in a recent legal success of the Good Thinking Society.

'We've been working with a legal team to tackle issues around homeopathy from a legal perspective, including one element where we are

examining individual local commissioning bodies ('CCG's) within our health service and their decisions to fund homeopathy. This led to our legal challenge to Liverpool CCG after we felt their decision to continue funding homeopathy to the tune of £35k was made unlawfully. Happily our formal legal challenge was successful – Liverpool CCG accepted that there were flaws in their decision making, and have confirmed they've reversed their funding decision and will reconsult. We feel the next consultation is likely to have a more agreeable outcome, and we intend to be part of that consultation process. Our full statement on the project is here:

<http://goodthinkingsociety.org/projects/nhs-homeopathy-legal-challenge/>.

'We feel this is a major first victory, and an important step in highlighting to other CCGs around the country that there is an organised and willing skeptical voice looking to challenge unjustifiable spending of taxpayer money on the NHS. We're also crowdfunding in order to enable us to take this success on to other CCGs where homeopathy is still funded – including the large cluster of CCGs around the London homeopathic hospital, which makes up a large bulk of the UK's homeopathic spending:

<https://www.justgiving.com/Good-Thinking-Society-Appeal>.

'Anything you can do to spread news of our project amongst your members and to help us raise the funds we need would be greatly appreciated, not least because it is useful for us to share such ideas in case there is a chance that the same idea could work elsewhere. We think this is a great opportunity to use legal challenges to effectively scrutinise the homeopathy industry all across the UK, and hopefully with your help we can take this first victory and press on to something even more significant.'

Veterinary Homeopathy

'EU orders Britain's organic farmers to treat sick animals with homeopathy'— Daily Telegraph, 24.4.15. But see:

<https://fullfact.org/factcheck/europe/eu-homeopathy-norwegian-vets-43773>

Crystal healing

'Why healing crystals might make some people feel better'. Account of a crystal healing centre in Mt. Shasta, California ('The Pulse', 28.5.15).

<http://www.newsworks.org/index.php/t hepulse/item/82346-why-healing-crystals-might-make-some-people-feel-better>

Allergies

Sense About Science have launched *Making Sense of Allergies*, 'which investigates ideas about causes, diagnosis and treatment with a group of allergy specialists and has brought together points to help you make sense of it all'.

<http://www.senseaboutscience.org/resources.php/189/making-sense-of-allergies>

For further information, discussion and Q&As visit the following webpages:

http://www.mumsnet.com/Talk/mumsnet_q_and_a/2397713-Q-A-about-allergies-with-Sense-About-Science

This is very timely as, not for the first time, bogus allergy and food intolerance tests have been in the news thanks to investigations by the Good Thinking Society. For further information go to:

<http://goodthinkingsociety.org/category/projects/allergy-testing/>

See also 'Warning over dodgy allergy tests' at:

<http://www.bbc.co.uk/news/health-33115311>

PSYCHOLOGY AND PSYCHIATRY

Replicability of psychological research findings

From *Nature*, 30.4.15:

'An ambitious effort to replicate 100 research findings in psychology ended last week — and the data look worrying. Results posted online on 24 April, which have not yet been peer-reviewed, suggest that key findings from only 39 of the published studies could be reproduced.'

<http://www.nature.com/news/first-results-from-psychology-s-largest-reproducibility-test-1.17433>

Human memory

Video recording of Professor Elizabeth Loftus's lecture 'The Memory Factory' at the APRU.

<http://www.gold.ac.uk/apru/lectures/>

Lie-detectors

Listen to Radio 4's programme on the use of 'lie detectors' with sex offenders, broadcast on 1.4.15. Anjana Ahuja argues that the introduction of polygraphs for sex offenders in the UK requires further ethical scrutiny and academic oversight.

<http://www.bbc.co.uk/programmes/b05nvg7p>

(Superfluous) neuroscience

'Psychology students were asked to rate the quality of short explanations (some were sound, others were circular) for psychological phenomena such as "face recognition" and "emotional states". When superfluous neuroscience information was added to the end of these explanations, the students rated the explanations more highly.'

<http://digest.bps.org.uk/2015/04/psychology-students-are-seduced-by.html>

Sleep paralysis

Ahead of the publication of his forthcoming book on the topic (*Sleep Paralysis Historical, Psychological and Medical Perspectives*, Oxford University Press) Dr Brian Sharpless is interviewed on sleep paralysis in this episode of the Monster Talk podcast:

<http://monstertalk.skeptic.com/lets-get-this-off-our-chest>

(See also 'Chris French at Reddit.com' under 'General'.)

Therapies to 'cure' homosexuality

Controversial therapies that promise to 'cure' homosexuality may be banned by the UK government.

http://www.thesundaytimes.co.uk/sto/news/uk_news/article1568429.ece

POLITICS AND PUBLIC POLICY

Helping MPs understand randomised control trials

What do MPs think about randomised controlled trials? See:

<http://www.senseaboutscience.org/pages/what-do-mps-think-of-rcts.html>

'MPs value the views of constituents and expert opinion more highly than evidence from randomised controlled trials, a new survey has found, and this may be due to a misunderstanding of how they work. However, the majority of the MPs who were questioned support the idea of using randomised controlled trials to evaluate policies and don't believe they are too expensive.'

<http://www.theguardian.com/science/sifting-the-evidence/2015/apr/13/lets-help-mps-understand-the-value-of-randomised-controlled-trials>

Police and crime

A survey of police forces by the National Audit Office has revealed that only 22% of emergency and priority incidents involving police are actually crime-related.

<http://www.nao.org.uk/wp-content/uploads/2015/06/Financial-sustainability-of-police-forces-infographic.pdf>

Children and online pornography

See 'The Online Journalism Blog' for criticisms of press reports concerning a survey of addiction to online pornography amongst 12-13-year-olds.

<http://onlinejournalismblog.com/2015/04/06/bad-data-pr-how-the-nspcc-sunk-to-a-new-low-in-data-churnalism/>

Politics and crime

'Experts are warning that politicians are making sweeping promises to reduce crime that are nearly always wrong. This has to stop, which is why researchers and members of the public are questioning the evidence behind crime policy, and calling on politicians to stop misleading voters.'

<http://www.senseaboutscience.org/pages/crime.html>

RELIGION

Religious beliefs

John Lombard charts his journey from being a fundamentalist Christian, street evangelist, preacher, missionary in China and eventually, through 'a slow, painful process, over a period of a decade, coming to reject is beliefs and

teaching as contradictory, illogical, and in clear conflict with science. Today, he is still in China but is a Secular Humanist, businessman and philanthropist.

<http://wrestinpeace.com/>

MISCELLANEOUS UNUSUAL CLAIMS

Ghosts

'Since toxic (*mould*) can trigger psychosis, Clarkson University ghostbusters believe the reason a pesky poltergeist will not leave you and your house alone is poor air quality.'

http://www.huffingtonpost.com/2015/04/05/ghosts-caused-mold-clarkson-university_n_7006836.html

Meanwhile, Derek Acorah is reported to be suing Rhyl town council after getting beaten up by ghosts in the street.

<https://denbighshiretoday.wordpress.com/2015/05/14/derek-acorah-to-sue-rhyl-town-council-after-getting-beaten-up-by-a-yobbo-ghosts/>

'Satanic abuse'

'Dad falsely accused of 'satanic' abuse speaks of ordeal'

<http://www.bbc.co.uk/news/uk-32357195>

'The Satanic cult that wasn't: How Satanic abuse accusations in a North London suburb went global, but turned out to be untrue' (BBC Radio 4, 23.4.15).

<http://www.bbc.co.uk/programmes/b05r40r5>

Ritual sexual abuse: The anatomy of a panic, Part 1 on BBC Radio 4, 25.5.15; Part 2 on 31.5.15 (with David Aaronovitch).

<http://www.bbc.co.uk/programmes/b05vx63j>

'The ongoing legacy of the great satanic sex abuse panic' (*Washington Post*, 26.5.15). 'The state's highest criminal court on Wednesday threw out the 1992 sexual assault convictions against Dan and Fran Keller but declined to find the former Austin day care owners innocent of crimes linked to a now-discredited belief that secret satanic cults were abusing day care children nationwide. The Kellers spent

more than 22 years in prison after three young children accused them of dismembering babies, torturing pets, desecrating corpses, videotaping orgies and serving blood-laced Kool-Aid in satanic rituals at their home-based day care. No evidence of such activities was ever found.'

<http://www.washingtonpost.com/news/the-watch/wp/2015/05/26/the-ongoing->

legacy-of-the-great-satanic-sex-abuse-panic/?postshare=7711432734043364

Conspiracy theories

Chris French discusses conspiracy theories on BBC Radio 4's 'All in the Mind', 26.5.15.

<http://www.bbc.co.uk/programmes/b05vzyst>

The latest paper on the psychology of belief in conspiracy theories from

the APRU (Robert Brotherton and Chris French) is freely available at: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0124125>

Just after this paper came out, another paper was published (by Jan van der Tempel and James Alcock) drawing very similar conclusions:

<http://www.sciencedirect.com/science/article/pii/S0191886915001725>

UPCOMING EVENTS

THE ANOMALISTIC PSYCHOLOGY RESEARCH UNIT AT GOLDSMITH'S COLLEGE LONDON

<http://www.goldsmiths.ac.uk/apru/speakers.php>

<http://www.skeptic.org.uk/events/goldsmiths>

Seminars are held on Tuesdays at 6:10 p.m. in Room LGO1 in the Professor Stuart Hall Building (formerly the New Academic Building), Goldsmiths College, University of London, New Cross, London SE14 6NW. Talks are open to staff, students and members of the public. Attendance is free and there is no need to book.

You are strongly recommended to register (at no cost) with the APRU's 'Psychology of the Paranormal' email list to ensure that you are informed of any changes to the programme. Visit:

<http://www.gold.ac.uk/apru/email-network/>

<http://www.twitter.com/ChrisCFrench>

or

<http://feeds.feedburner.com/apru>

Five more podcasts of APRU talks are now up featuring the talks by:

Chris Roe: Dream ESP

Edzard Ernst: Homeopathy

Jonny Scaramanga: Christian indoctrination

Meirion Jones: Bogus bomb detectors

Niall McCrae: Temporal lobe epilepsy

<http://www.gold.ac.uk/apru/lectures/>

SKEPTICS IN THE PUB

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

<http://www.skeptic.org.uk/pub/>

<https://twitter.com/SITP?refsrc=email>

CONWAY HALL LECTURES LONDON

The London Fortean Society in association with Conway Hall presents:

Roger Luckhurst: The Inventor of the Zombie: The life and times of William B Seabrook: pervert, drunk, cannibal, occultist and 'negrophile'.

Date: Tuesday 8 September 2015, 7.30pm

Fee: £5 (Tickets)

Venue: Conway Hall, 25 Red Lion Square, London WC1R 4RL.

Other lectures of interest to skeptics cover topics on fairy stories in Victorian England, evidence-based politics (with Sense About Science) and Islam and terrorism. For details of these and other talks and symposia on philosophical, ethical and skeptical topics visit:

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

CENTRE FOR INQUIRY UK

For details of upcoming events:

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

LONDON FORTEAN SOCIETY

See also Conway Hall Lectures. For details of other meetings:

<http://forteanlondon.blogspot.co.uk/>

LOGIC AND INTUITION: ANSWER

Friends and strangers

It's true. Let's call one guest Mary. Of the five remaining people, either *at least* three are friends of Mary or *at least* three are strangers to her:

1. If the five include three friends of Mary then either these three are all strangers to one another or one pair are mutual friends and therefore together with Mary form three mutual friends.

2. If the five include three strangers to Mary, then either these three are mutual friends or two of them are mutual strangers and therefore together with Mary form three mutual strangers.

Another handshake problem

There are 10 people. You can work this out laboriously by thinking of how many handshakes there are for a group of 2 people, 3 people, 4 people, etc.

until you reach the number required for exactly 45. Thus:

For 2 people there is 1 handshake

For 3 people there are 3 handshakes

For 4 people there are 6 handshakes etc., etc.

As you are doing this you will realise that there is a formula. Subtract 1 from the number of people (e.g. with 8 people, 8 minus 1 is 7). Then work out the sum of this number plus all the numbers less than this down to 1 (in

this case $7+6+5+4+3+2+1 = 28$). For 10 the answer is $9+8+7+6+\dots$ etc., which is 45. The short cut is to multiply x (the number of people) by $(x - 1)$ and divide by 2.

To directly work out the number of people from a given number of handshakes involves the quadratic equation $(x^2 - x)/2 = y$, where y is the number of handshakes - 45 in the case of the puzzle (*but we are not going there - Ed.*).

Yet more on ‘How much has Albert lost?’

MP’s answer to the puzzle was as follows:

‘I would say that the “loss” to Albert is £8. What the stranger got (in effect stole) was some chocolate which cost Albert £4 (and quite properly he was carrying his inventory at cost, like a good little accountant) plus his £4 in change from his forged £10 note.....All the rest of it is just a smokescreen - Albert still has £6 of the £10 he changed, so he did not lose all £10. Another way to look at it is that the transaction comprises 2 distinct parts - the forged note and the sale of the chocolate. On the forged note Albert indeed lost £10, but made £2 back by selling chocolate that cost him £4 for £6 (he only gave £4 in change), thereby reducing the loss on the forged note by the “profit” on the sale of the chocolate.’

I also received an email from a reader Rory Allen who, like MP, considered the answer I had given to be wrong. This is Rory’s argument:

‘I would argue that the correct answer is that Albert lost either £8 or £10, depending on the intentions of the customer. The reason is as follows. First, suppose that the customer was a criminal, intent on laundering a forged £10 note. Albert gave the customer £4 in coins, and also chocolate ‘worth’ £6. However, the actual amount of Albert’s loss was £8, because Albert lost not £6, but only £4 on the chocolate. He can replace the chocolate for just £4 at the wholesale price.

‘To see again why this is correct, suppose that Albert tries to claim for the theft against his insurance policy.

The insurance company will only reimburse him for £8, on the grounds that this returns him to precisely the position he was in before the theft: £4 to replace the lost cash, and £4 to replace the lost chocolate. Since £8 is sufficient to restore Albert’s pre-loss position, it must also be the value of his loss.

‘Now suppose on the other hand that a genuine customer had unknowingly passed Albert a forged £10 note, having perhaps been given it in change by another person, but presuming it to be genuine. The customer would normally have paid £6 for the chocolate quite happily. Albert’s loss would now be not £8 but £10, because he has missed not only the £8 necessary to return him to the previous position, but the extra £2 he should have earned from an honest chocolate-buying customer. Reimbursing him £8 would not then compensate him for the loss of £2 profit from a genuine customer.

‘In real life, Albert would presumably argue for the likelihood of the customer being genuine, and for a £10 insurance payout. The insurance company would equally insist on the probability of the customer having criminal intent, and would pay just £8. The question does however illustrate the importance of psychological factors in even apparently simple issues. Technically, as posed the problem is under-determined.’

I emailed both MP and Rory with my counterarguments (which are in the previous issues). Recall that essentially I maintain that what happened to Albert is no different than if, at the end of the day, he discovers he is £10 short of his expected takings. Hence in the puzzle his loss is £10.

MP’s rejoinder was as follows:

‘I wish to appeal your so-called “correct” answer. No dispute on the £4 change given, but the loss to Albert on the chocolate is £4, not £6. The “sale” is no different than if Albert found the chocolate nibbled by mice and had to throw it away. Would he then have lost £6? No, he would only have lost what he had paid for the chocolate - £4. He

is still free to make his profit on future sales, but you can’t lose what you never made! The chocolate is carried at cost in Albert’s books, so when it disappears the “asset” of £4 becomes an expense (loss of inventory) of the same amount (in double entry terms, credit inventory account, debit expense).

And Rory replied thus:

‘The more I think about this, the deeper the problem seems to be. I am not sure one can say that either accountant (JP and MP) is wrong; counter-intuitive though it may seem, I am more than ever convinced that the customer’s intentions are important and either answer may be right.

‘The key idea is that it depends on how one defines “loss”. Is it a decline in one’s net financial worth, or a reduction in anticipated net worth? I think it involves anticipation. Suppose Albert has a second job as a plumber. Someone promises him £50 for fixing their leaky tap. This person waits until Albert does the job, and then refuses to pay him. Has Albert lost £50? His financial position is identical (assuming he has spent a negligible sum on tap washers etc.), and his customer has made no financial gain. Yet Albert will certainly feel a sense of loss’.

A variation of the puzzle

Scenario 1:

The person buying the £49 box of chocolates comes and gives Albert a £50 note and Albert returns to him his £1 change from his existing cash reserves. Then the customer buying the £1 chewing gum comes in and gives Albert exactly £1 (which Albert returns to his previous cash reserves). At the end of the day Albert’s total takings are therefore £50; this is the cost of the chocolates (£49) plus the cost of the packet of chewing gum (£1). His takings are in the form of the £50 note given to him by his first customer. Unfortunately this turns out to be a fake. Therefore his takings for that day are zero and a box of chocolates and a packet of chewing gum are no longer in his stock.

Scenario 2:

The person buying the £49 box of chocolates comes and gives Albert exactly £49. The person buying the £1 chewing gum comes in and gives Albert a £50 note; Albert returns to him his £49 change. At the end of the day Albert's total takings are therefore £50; this is the cost of the chocolates (£49) plus the cost of the packet of chewing gum (£1). His takings are again in the form of the £50 note, but this time given to him by his second customer. Unfortunately this turns out to be a fake. Therefore his takings for

that day are zero and a box of chocolates and a packet of chewing gum are no longer in his stock – exactly the position he arrives at in Scenario 1.

So it doesn't matter how Albert acquires the dud £50 note – he is always down by £50, no more, no less. The conclusion would be same if *both* customers paid with a £50 and just one turned out to be a fake. For Albert to work out his loss it would not be necessary for him to know which customer paid with the forged note.

And the same applies no matter how many customers he has that day.

Which offending customer is the better off in the above two scenarios? The person who pays for the chocolates with the fake note freely acquires £49 in goods plus £1 in cash; the person who pays for the chocolates with the fake notes acquires £1 in goods plus £49 in cash. So for present purposes both profit to the same degree.

THE ASSOCIATION FOR SKEPTICAL ENQUIRY (ASKE)

- ASKE is committed to the application of rational, objective and scientific methods to the investigation and understanding of ideas, claims, and practices, especially those of an extraordinary and paranormal nature.
- ASKE is committed to challenging the uncritical promotion of beliefs and claims which are unsupported or contradicted by existing objective and scientific knowledge.
- ASKE opposes the misinterpretation and misrepresentation of science for purposes which deceive the public.
- ASKE supports the objective evaluation of all medical or psychological techniques offered to the public and opposes the uncritical promotion of techniques which are unsupported or contradicted by existing scientific knowledge.
- ASKE supports all efforts to promote the public awareness of the rational and scientific understanding of extraordinary and paranormal claims.
- ASKE is committed to a rational understanding of the reasons and motives which underlie the promotion and acceptance of irrational and paranormal claims and beliefs.
- ASKE accepts the rights of individuals to choose for themselves their beliefs about the world.

About ASKE

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

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

m.heap@sheffield.ac.uk

email: aske1@talktalk.net;

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