

# *THE SKEPTICAL* *INTELLIGENCER*



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*Incorporating the Skeptical Adversaria: the ASKE Newsletter*

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**Edited by Michael Heap**

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## GUIDELINES FOR AUTHORS

The *Skeptical Intelligence* 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 Intelligence* should 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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## FROM THE ASKE CHAIRMAN

### Michael Heap

#### Why are rates of recorded crime falling?

In October this year I attended a symposium on falling crime rates and their probable causes (*note 1*). For about the last 10 years or more crime generally (and most kinds of crimes) has been falling in the UK whereas it had been constantly rising prior to that, particularly from the 1960s onwards.

One possible cause suggested most recently (but not discussed at the symposium) is the manipulation of the figures by the police, either by not recording crimes at all or by downgrading the seriousness of recorded offences (*note 2*). Skeptics will not be incredulous in the face of this allegation; where it is advantageous to them, say to demonstrate improved performance or to meet targets, people will adjust the data accordingly, even unconsciously. Despite this, criminologists in the main agree that the fall in crime is genuine: it has been reported in very many countries and is apparent in victim surveys as well as crimes recorded by the police.

The symposium revealed a phenomenon that is of interest to skeptics: each speaker had his own favoured explanation and presented data that seemed to convincingly support it. For one speaker it was increased security: as the number of offences of a particular category rises, so do security and preventative efforts so that the rising trend is eventually reversed ('crime is self-limiting'). This theory seems to work best for vehicle theft and burglary. Another explanation was low inflation – that is, crime rises with inflation because of the greater demand for stolen goods, and hence more acquisitive crime and more violence associated with it. A questioner from the audience, interestingly an economist, promoted an endocrinological explanation and invited the audience and speakers to

read a journal paper on the theory, a pile of which he had left by the entrance. The theory is: testosterone is reduced in obese men; low testosterone level in men is associated with reduced tendency to criminal activity; the incidence of obesity is rising; hence crime will fall.

The symposium did not address several other explanations that have been put forward in recent years: abortion having a disproportionate culling effect on prospective criminals prior to birth; the phasing out of leaded petrol; longer prison sentences (inmates tend to be repeat offenders but they can't offend while they're in jail); and robust (zero-tolerance) policing methods. Some explanations of *rising* or geographical differences in crime rate don't fare too well - e.g. unemployment and inequality.

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***Each speaker had his own favoured explanation and presented data that seemed to convincingly support it.***

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Maybe there is not just one explanation and maybe some of the contributing factors are very subtle and difficult to measure. Predicting the behaviour of a single human being is hard enough, so predicting the behaviour of thousands of interacting humans is pretty impossible (cue for economists to comment).

#### Keep an eye on epigenetics

At the beginning of December the media were excited by a study in the journal *Nature Neuroscience* (*note 3*) which reported that the fear response conditioned to an olfactory stimulus in mice before conception may be transferred to the next generation and even the one afterwards, seemingly by the process of epigenetic inheritance (changes in gene expression without changes in the DNA sequence). I know

next to nothing about epigenetic inheritance but it struck me that this is the kind of process that someone could easily run away with into all sorts of places where it has little business. Epigenetic inheritance and criminal behaviour? Sure enough, a Google search reveals what seems to be a respectable field of scientific study. How influential will this become in our criminal justice system? Let's see.

#### Reduced street lighting and crime

Sometimes an action will not have the obvious effect that one would predict – hence the need for good evidence. In September the *Shropshire Star* (*note 4*) reported that 854 people, mainly from the north of Shrewsbury had signed a petition asking Shropshire Council to reverse a policy which had so far seen around 5,000 street lights switched off between midnight and 5.30am. The petition was prompted by a burglary in the locality. Residents wanted the lights back on to deter crime and help people feel safer in their homes. However, a report advised councillors to keep the policy, which will eventually be extended to 12,600 street lights throughout Shropshire. The report said that in northern Shrewsbury, the number of crimes reported between April and June 2012 – when lights were on all night – was 11. In the same period in 2013 when the lights were off, there were 10 reported crimes.

#### Notes

1. [http://www.shef.ac.uk/polopoly\\_fs/1.270173!/file/MLRProgramme.pdf](http://www.shef.ac.uk/polopoly_fs/1.270173!/file/MLRProgramme.pdf)
2. <http://www.telegraph.co.uk/news/uknews/crime/10511503/Fall-in-crime-overstated-says-expert.html>
3. <http://www.nature.com/neuro/journal/vaop/ncurrent/full/nn.3594.html>
4. <http://www.shropshirestar.com/news/environment/2013/09/28/street-lights-switch-on-appeal-faces-refusal/>

## LOGIC AND INTUITION

### Designing Psychological Experiments

Designing an experiment to test a prediction based on some hypothesis concerning human psychology is deceptively difficult (this may well be true of other disciplines). Partly owing to this, the psychological research literature is notoriously adversarial; proponents of one particular theory will publish the results of an experiment they have conducted that purports to support their theory and disprove an opposing theory. Then the advocates of the supposedly discredited theory will point to flaws in their opponents' experimental design and carry out an experiment that eliminates these flaws. Surprise, surprise: the experiment supports their theory and disproves the first one. But this isn't the end of the story; the first experimenters will protest that the second experiment is in fact flawed and they report a third experiment that they maintain clearly demonstrates the superiority of *their* theory. While the second group are preparing their counterblast, a third research group arrive on the scene with *their* theory and experimental support ..... and on and on it goes until everyone gets fed up and moves on to something else. I exaggerate, but not much.

Designing a psychological experiment is very much an exercise in logical thinking, and many experimental designs are doomed if the researchers are not alert to possible flaws that would provide alternative

explanations for any positive results observed. In the field of experimental parapsychology, the reports of extraordinary positive findings have often been discredited because the experimenters have overlooked some simple way in which, for example, information supposedly conveyed telepathically could have been communicated by more obvious ways, even those that involve cheating. Another occasionally reported problem is when the investigator halts the experiment once the results are looking favourable for a psi effect, thus capitalising on the statistical variation in the subject's accuracy of guessing over a series of trials.

Consider the following experiment on telepathy and see if you can spot the flaws in the design (we will assume that watertight controls are in place to prevent any leakage of information between the participants). Incidentally, I know of no one who has actually conducted this experiment: I have invented it simply for the purposes of this exercise.

#### Experiment

The researchers are interested in demonstrating that identical twins are capable of telepathic communication with one another. In one room one twin is presented with five pictures of different scenes. She is asked to choose one of the pictures and study it carefully for two minutes. It is then taken away and she chooses a second

picture, studies that for two minutes, and so on until she has looked at all five pictures separately.

In another room, the other participant is informed about what her twin sister is doing and she is also shown the five pictures. For each of the two-minute intervals that her twin sister is studying one of the pictures, she has to think about her and guess which of the pictures she is looking at. The picture she selects is then removed, so she only chooses each picture once. She is not informed whether she is correct or not until the experiment is complete.

The researchers carry out this experiment on a sample of identical twins and report that, while no one is 100% correct (all five pictures correctly chosen), for most pairs the accuracy rate is well above that expected by random guessing and collectively the results for the sample are at an astonishing level of statistical significance. So, have the experimenters convincingly demonstrated that identical twins are capable of communicating telepathically with each other?

See page 19 for comments and possible answers.

### *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.

## MEDICINE ON THE FRINGE

### Michael Heap

#### 'Health Freaks' Channel 4

In October and November this year, Channel 4 had a series called 'Health Freaks'. Members of the public were invited to appear on the programme in front of three general medical practitioners and describe to them unorthodox remedies that they had used on themselves and their family members. The format was reminiscent of the BBC programme 'Dragons' Den': the claimants entered the room with their product and made their pitch, and the panel decided whether the claim was sufficiently plausible and safe to warrant the investment of a test (albeit of a minimum scale).

Quite a number of the featured remedies were familiar – bread poultices (for boils), turmeric and yoghurt (for acne), toothpaste (for insect bites), standing on your head (for baldness), WD40 (for arthritis), and drinking breast milk or urine (for everything). The accounts and the reasoning of those promoting these remedies were very reminiscent of the claims and propaganda put forward by purveyors of alternative medicine and which are very familiar to skeptics. In only a minority of cases was there any scientific rationale for the treatment, and even then it was not very strong (e.g. such-and-such substance may have anti-inflammatory/ antibacterial/ analgesic properties). For the condition being treated there were already available to GPs a number of remedies that have been shown to be effective (although in many cases the claimant had been prescribed these without success). Some of the remedies carried potential risks of which the claimant seemed unaware (e.g. your urine cannot be guaranteed to be sterile). All claimants were adamant (and very convincing) that their treatments were effective, even when contrary information was provided by the panel. In particular they were unwilling to accept alternative explanations for the

improvement in their condition. This was strikingly demonstrated by a claimant whose arthritis dramatically improved after she started drinking cider vinegar and honey. She believed that the treatment worked because she was de-acidifying her body (with vinegar?). On further questioning she also mentioned that she had lost a great deal of weight (going from a size 20 to a size 14) and was taking more exercise. No minor detail.

Each episode featured a simple test of one of the claimed remedies. These very limited tests suggested that duct tape might be a useful treatment for verrucae and warts; coconut oil is not an effective mouthwash; oat baths might be helpful for psoriasis; breast milk does not have anti-bacterial properties (at least milk from the one donor breast); turmeric with yoghurt does not relieve acne; and copper insoles might reduce arthritic pain. Yes, copper insoles.

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***All claimants were adamant (and very convincing) that their treatments were effective even when contrary information was provided by the panel.***

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The last mentioned test was conducted on three patients. All said they felt less pain after a period wearing copper insoles. The participants also had their blood tested for any elevation in levels of copper, and sophisticated 'state of the art' assessments at the University of Salford for any beneficial alteration in their gait which could have arisen merely from wearing insoles (copper or otherwise). Unsurprisingly no copper had managed to find its way into the blood stream and no change in gait was detectable.

The three GPs were shown announcing the results of the test to the

claimant, who had earlier described this treatment for his osteoarthritis as dramatically successful, although the GPs had expressed their skepticism. I don't know about anyone else but I immediately sensed that there was something bothering our medical friends. You might have expected them to waste no time announcing the glad tidings that three patients with chronic arthritis were experiencing less pain after wearing copper insoles. But no. First came the grave but unsurprising revelation that the patients' copper levels were unchanged. Second, it was revealed that no change in gait had occurred which might account for any reduction in pain. Finally the claimant was informed that all participants reported reduced pain due to their arthritis. Surely that's the only thing that really matters?

After some further desultory discussion, the GP who presented the programme made the following announcement (repeated on the programme's website):

'In response to our findings The Original Copper Heeler Company, the company that sells copper insoles, told us that they believed that their insoles were a natural drug-free solution to the pain of arthritis and that many of their customers had cancelled operations and stopped taking prescription drugs due to wearing them.'

I wonder if you, the reader, share my suspicion of some undercurrents here, something that was troubling the medical team and maybe the programme producers? Why the apparent embarrassment of the team in acknowledging the main findings of the test? (Curiously, on the programme website it is stated, 'However, *three of the volunteers* reported a reduction in pain and said they would continue to wear the copper insoles' [italics mine]; were there more volunteers?) And why give The Original Copper Heeler

Company this extraordinary free publicity?

Well, the one glaring factor that could provide an explanation, if one is needed, is that even by the most charitable standards the test was rubbish. Take three people with a chronic painful condition, start them on some treatment, tell them they are participating in a clinical test – for a television programme no less – and soon enough they will surely report feeling less pain. I cannot believe that

the three medical doctors would not be aware of this; indeed one of them did mutter something about ‘the placebo effect’ in their discussion of the findings. What a blunder!

There will be second series in due course. The first series was interesting and instructive enough to be worthwhile watching, though it was clearly edited and hyped up for entertainment purposes. I am sure that experienced GPs have sufficient awareness of the bizarre treatments

some of their patients are willing to inflict upon themselves to restrain them from crying out ‘Oh my god!’ and ‘I *cannot* believe this!’ every time. As for the question ‘Are these people barmy or could their treatment save the NHS millions of pounds?’, I am sure the answer is neither. In particular, never believe anyone claiming they have a treatment that ‘can save the NHS millions of pounds’; even if it could it wouldn’t.

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## LANGUAGE ON THE FRINGE

### Mark Newbrook

#### **Does being multilingual (or knowing some linguistics) make you a better philosopher?**

##### **(Part 3)**

A coda to my discussion in the last two issues: some non-mainstream writers develop their own theories regarding the relevance of linguistic facts (as they perceive and analyse them) to philosophical issues, and/or *vice versa*. One such person is the psychologist and amateur logician John Trotter (mentioned briefly in this column last year). In the 1970s-80s Trotter, a psychology lecturer, developed radical views on the logical and structural nature of language, and incorporated these into papers offered for publication and into his teaching. If Trotter’s main ideas are valid, much of the basis of linguistic theory and by extension some important aspects of contemporary thought on logic must be mistaken. His papers were rejected by editors and reviewers whom he regarded as inadequately informed, and he was allegedly discouraged from presenting his views to students. After that time he operated as a private scholar.

Some of Trotter’s main points involve direct criticisms of mainstream linguistic concepts. For instance, he holds that some key mainstream linguistic concepts such as ‘allophone’ and ‘phoneme’ should **not** be used;

new formulations of the matters in question should be adopted. This stance involves his rejection in its mainstream form of the ‘emic/etic’ contrast (as in *phonemic* versus *phonetic*), which he instead treats as essentially a type-token relationship; for example, each phoneme is seen as a type and each of its allophones as a token of this type. Trotter’s objection at this point is associated in turn with his opposition on philosophical (ontological) grounds to some types of linguistic expression used to express the relationship between types and tokens (for example, he objects to definite descriptions such as *the dodo* as used to refer to a type, as in *the dodo is now extinct*). However, whatever might be the merits of Trotter’s philosophical points, his reasons for rejecting the mainstream formulations of the linguistic concepts in question here (‘allophone’ etc.) appear to involve (a) a degree of misreading of mainstream linguistics (an allophone of a phoneme is **not** in fact the same thing as a token of that phoneme; it is itself a type, more specific and at a less abstract linguistic ‘level’, and has its own tokens, namely the individual instances where it occurs) and (b) an exaggerated ontologically-based preference for one kind of linguistic formulation of such matters over another.

As noted last year, Trotter also argues that certain kinds of formulaic expression of philosophical interest (for instance the logician’s *For all X, X is Y* = ‘all Xs are Y’, as in ‘all men are mortal’) are to be deemed ungrammatical even though they are the normal forms used by the relevant native speakers (logicians) in such cases. *For all X, X is Y* is seen as ungrammatical because there is no determiner such as *that* or *the* before the second token of *X*, which would be required in more everyday styles of English if the sentence were to occur (suitably modified) and to be deemed grammatical. For instance, in any other context one would not say *For all lions, lion has paws*, or even *For every/any lion, lion has paws*; the noun *lion* in the second clause would always have a determiner, as in *that lion* or *the lion*. However, this does not imply that it must have a determiner in the style used in the technical philosophical/logical domain in which such sentences normally occur. These sentences are **not** ungrammatical in context in any normal sense of this term (prescriptivist **or** descriptivist).

Trotter goes on to argue that because these expressions are ungrammatical they are also logically invalid – and that, because the issue at hand is central in discussions of logic, the whole basis of logic is thereby

impugned. Indeed, the philosophical underpinnings of contemporary logic and linguistics are grossly inadequate. Both mainstream linguists and philosophers would deny this. First of all, the linguistic features in question are found in only some languages. Not all languages even require determiners modifying nouns; for instance, Chinese and Russian do not. In fact, as I noted earlier, there are serious problems (albeit not always adequately acknowledged by philosophers) associated with heavy reliance upon linguistic data in a philosophical context, because the details of the constructions involved vary so much from language to language. And, even if it were accepted that **English** sentences such as those cited were ungrammatical, it would thus be difficult to argue that some formulations were logically invalid on the ground that there was an issue with the grammar of the versions of these formulations as expressed in English but not in all languages. English and similar languages have no special status in this respect.

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***Most grammatical anomalies (whatever their origin or the status ascribed to them) generate no significant ambiguity and certainly have no logical consequences.***

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Indeed, the grammatical and logical statuses of expressions in any given language are very largely independent of each other. Grammatical issues can normally bring the logical status of expressions into question only if they involve the meanings of these expressions, for example by rendering them ambiguous or self-contradictory. Most grammatical anomalies (whatever their origin or the status ascribed to them) generate no significant ambiguity and certainly have **no** logical consequences. A form such as *Jo go home at 5 p.m.* (grammatically non-standard) is normally semantically transparent, and its 'ungrammaticality'

(in contrast with *Jo goes home at 5 p.m.*, etc.) has no logical consequences.

### **Chomskyan tangents**

Although in the piece just above I defend mainstream linguistics (and philosophy) against thinkers such as Trotter, I would also concede (and indeed I have argued in print; see now especially Chapter 12 of my *Strange Linguistics*; Munich: Lincom-Europa, 2013) that in some respects mainstream linguistics is indeed more in need of skeptical attention than some other mainstream disciplines. One reason for this is the relative lack of consensus or orthodoxy in linguistics, and how this is handled. Obviously, on many major issues involving language almost all linguists **do** in fact agree with each other, at least in general terms. However, one does not have to penetrate far into linguistics to find disagreement on basic points. There are many competing 'schools', 'paradigms' and 'frameworks' within many of the branches of linguistics, differing from each other on such fundamental and basic issues as, for instance, the 'true' or most insightful grammatical analysis of sentences as straightforward as *Mark has drunk his beer* in a language as well-described as English. Of course, all fields display **some** differences of this kind, despite displaying substantial cores of shared ideas. In the case of linguistics, however, the degree of disagreement is so great that the need for skeptical attention would appear greater than in some other disciplines.

Professional linguists have not been conspicuously effective in dealing with this problem. Some, especially those influenced by postmodernism, 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 'frameworks' appear to be offering incompatible analyses of the very same aspects of the matters in question. One can make any set of 'assumptions' which is not self-confounding or refuted by obvious facts, and can then extrapolate massively from these

'assumptions', with little fear that anyone will actually attempt to disprove them. Often, limited interest is shown in the question of how far the 'assumptions' and 'paradigms' upheld by a given group of linguists might actually prove demonstrably preferable to alternative ideas.

A further problem here lies in the fact that different 'schools' do not by any means always agree even on what is valid and relevant evidence in such cases, or at any rate upon the relative importance of different types of evidence. For instance, some linguists regard typological surveys of 'surface' structures, involving many languages, as crucially important in resolving issues of analysis and theory, while others prefer to rely mainly upon close, abstract analyses of one language or a few languages, or indeed upon the judgments of linguistically-untutored native speakers as to whether sentences in their first languages, presented to them in surveys, are 'grammatical' or not.

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***In the case of linguistics, however, the degree of disagreement is so great that the need for skeptical attention would appear greater than in some other disciplines.***

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There is also a tendency for those who focus closely upon analyses of specific languages to ignore well-known facts involving other languages which appear to disconfirm their theories. In some cases this can even involve data from well-known varieties of the **same** language which differ in the relevant respects from the varieties best known to the linguists in question. Various claims made by American linguists to the effect that such-and-such a construction is impossible in English – or even impossible in **any** language – are readily refuted by features of non-standard or even standard British English (hardly an obscure language variety!) such as the ordering of pronouns in sentences like

*I gave it him* (normal in much of Northern England).

The training of academic linguistics and the nature of many linguistics departments contribute (often inadvertently) to these problems. Some departments have a strong bias towards one 'paradigm' or another. Many of these 'paradigms' have now developed in such depth and detail that students must spend several years familiarizing themselves with one 'paradigm' before their grasp of the material is at such a level that they can make fresh contributions at the 'cutting edge'. Differences **within** the 'paradigm' are discussed, but its basics are often left unchallenged. Furthermore, many of the central concepts and issues within each 'paradigm' are intelligible **only** within that 'paradigm'. All this applies most obviously (though by no means exclusively) to the world-wide community of linguists working in the tradition grounded in the ideas of Noam Chomsky.

One reason for this situation lies in the relative intractability of linguistic data. Linguistics is an essentially empirical subject; but, in the more abstract or speculative areas of such a domain, it is not always easy to adduce decisive reasons or evidence for preferring one account or analysis to another. However, it is surely preferable to seek to address this kind of issue with whatever decisive evidence may be found, rather than to forge ahead at great length with any one 'paradigm' in circumstances where there can be little confidence that it really is the 'best' available – and where other equally qualified linguists might deem that one has been 'going off at a tangent' for many years.

When I gave an oral presentation of these thoughts to a philosophy discussion group in Ulverston (Cumbria), Roger Lindsay suggested that by 'going off at a tangent' to such an extent a community of scholars (such as the Chomskyans) might eventually learn so much that they can unearth inconsistencies and other major flaws in their chosen 'paradigm' and thus come to the conclusion that

their specific approach to linguistics is after all globally misguided. This method of research might thus be less damaging and less wasteful of resources than I have argued here. Given that even the huge body of cross-linguistic data accumulated by empirical linguistics does not **clearly** favour one paradigm over another ('underdetermination of theory by fact'), and acknowledging the financial constraints upon linguistic research, I can see some merit in Roger's point. However, it is in practice conspicuously rare for Chomskyans and such to admit even the possibility of global error. Many of them prefer, as noted, simply to ignore disconfirming data; or else they avoid disconfirmation only at the cost of a degree of non-specificity or abstraction which precludes empirical testing (empirical emptiness). I will return to this last topic later with some telling examples.

#### **More fun things**

Some erstwhile 'intransitive' English verbs have recently come to be used 'transitively', with objects. One such is *arrive*, as in *We will arrive you = 'check you in'*, in a notice at a doctor's office. Other 'trendy' verbs were not even used as verbs until the last few years; one such is *platform*, as in *This train will shortly platform at Oxford* (announcement).

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**Other 'trendy' verbs were not even used as verbs until the last few years; one such is 'platform', as in 'This train will shortly platform at Oxford' (announcement).**

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Foreign words can sometimes be heard or read in circumstances where they are liable to be grossly misinterpreted. I awoke once in an overnight train to the sound of a loud voice apparently saying 'Insane!' over and over. It gradually dawned on me that we were in the station at Insein, Burma! Fortunately I had not missed my own stop at Pegu, further south

towards Rangoon! But other cases have more serious consequences. A British husband and wife based in Singapore, off the southern tip of the Malay Peninsula, undertook a Sunday drive up into Malaysia. The navigator, armed with a road map, was repeatedly unable to locate the town of Utara, mentioned on a succession of roadside signs. The couple had a row which escalated ('And another thing...!') and eventually separated! The Malay word *utara* in fact means 'north'. (Readers of the Paddington Bear stories may recall a similar case involving French road-signs.)

I once received an application to study in the postgraduate linguistics program which I was then administering from a student based in the People's Republic of China. As the sole proof of his merits he sent me his bizarrely-worded translations of three Chinese stories which he deemed especially vital for cross-cultural understanding – dealing with 'the art of making fire by drilling wood', 'the tragic significance of the peacock which flew southeast', and 'why Si Ma Qian was castrated'!

It is (predictably) common for non-native usage in a given language to display patterns simpler than those which occur in native-speaker varieties. For example, many learners of English produce sentences such as *Jo go home at 5 p.m.* (see above) in contrast with standard native-speaker forms such as *Jo goes home at 5 p.m.*; they have not acquired/mastered the 3<sup>rd</sup>-person-singular present tense inflection *-s* and thus work with a simpler verb system. Such features can become 'fossilised', that is to say 'normal' in a given community of non-native users; this particular feature, for instance, is typical of informal and less educated Singaporean English. However, there **are** cases where the reverse is true: the non-native usage is **more** complex than the native. Cantonese has an unusually complex comparative construction, and in consequence Hong Kong students of English produce convoluted sentences such as *This book is relatively more*



*useful when compared/comparing to that one*; contrast the much simpler standard native-speaker form *This book is more useful than that one*. (It has to be admitted that some non-standard native-speaker usage also exhibits much ‘redundant’ complexity; consider

my Melbourne friend’s *You’d be more worserer then*, with a quadruple comparative!) Another case of this kind involves the fact that many non-native users of English (especially in Asia) avoid reduced vowels such as ‘schwa’ (as in *a*, *the*, the first vowel of

*about*, etc.). As a result of this, pairs of words such as *formally* and *formerly* – homophones in native-speaker usage, except in accents where the *-r-* in the latter word is pronounced – are pronounced differently.

## ARTICLES

### BIGFOOT TALK: CLAIMS REGARDING THE ‘LANGUAGE’ OF CRYPTIDS. PART 2: THE DATA

**Mark Newbrook**

*Mark Newbrook has been associated as a lecturer and researcher with universities in Singapore, Hong Kong, Australia and the UK. His main areas of research interest are dialectology, controversies in historical linguistics and skeptical linguistics generally.*

In Part 1 of this paper (see the previous issue) I discussed the background to the claims of Ron Morehead and Scott Nelson regarding alleged use of language by Bigfoot/sasquatch (the North American equivalent of the Himalayan yeti).

As I noted in Part 1, Nelson is unwilling to make his recordings available on reasonable terms, or to respond to queries about the details of his methodology; and this has prevented me from analysing the material which is transcribed by him on his website and upon which his comments there are focused. I will therefore comment here mainly on the transcriptions themselves and on what Nelson says about the data. Specifically, I will: (i) examine the extent to which Nelson’s comments suggest that his expertise in linguistics is adequate; (ii) examine Nelson’s stated criteria for assessing whether or not the recorded material said to be produced by Bigfoot should be regarded as genuine language associated with a non-human species (as Nelson maintains), in respect of their clarity as expressed by Nelson and their validity (including further consideration of the extent to which Nelson’s expertise in linguistics appears adequate); (iii) address the

question of whether or how far Morehead’s material should actually be regarded as non-human in origin but linguistic in nature, either in Nelson’s terms or on other criteria (including the largely non-phonological criteria discussed earlier, such as the presence of syntax); and (iv) report in specific terms on my analysis of the data and of Nelson’s own analysis.

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***Nelson reports that his transcription system, the ‘Sasquatch Phonetic Alphabet’ ..... involves a ‘variation of the English Reformed Phonetic Alphabet’.***

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Again as stated in Part 1, Ron Morehead himself appears to regard the recordings on the CD accompanying his book as adequate, although of course they involve a different body of recorded material. Given his attitude, I will comment here on the material on the CD.

For Nelson’s material and transcriptions, see:

<http://www.bigfootsounds.com/sasquatch-phonetic-alphabet>

(this and other cited websites were accessed repeatedly during January-March 2013).<sup>1</sup>

(i) I begin with Nelson’s explanatory comments on his transcriptions of the material. Nelson reports that his transcription system, the ‘Sasquatch Phonetic Alphabet’ (or more formally the ‘Unidentified Hominid Phonetic Alphabet’), involves a ‘variation of the English Reformed Phonetic Alphabet’. I have not been able to identify the system referred to by this last term, and the use here of the term *phonetic* suggests an amateur source, on which point see below (though other interpretations are possible). Neither Nelson nor Morehead has replied to my queries on this matter. It is also unclear to me why Nelson, who is identified here as a linguist, chose to use a system of this kind in preference to the language-neutral International Phonetic Association Alphabet (IPAA). IPAA is much the most versatile, precise and unambiguous system so far devised for the transcription of hitherto undescribed languages, and is certainly superior for such purposes to any imitated spelling system based on the phonetics of a specific known language such as English.<sup>2</sup>

Nelson announces that the existence of Bigfoot/sasquatch is assumed here, since ‘any Being must exist before his [*sic*] language’. It will

be clear from my comments in Part 1 that this argument is faulty; it depends upon the **assumption** that the material was produced by Bigfoot (and upon the view that it is indeed linguistic in nature). On the other hand, Nelson does apparently hold (his wording is not the clearest) that language researchers *per se* should (mainly?) work with the actual data rather than concern themselves with other considerations regarding the existence or otherwise of Bigfoot. This in itself is not unreasonable (see again Part 1). However, by referring here to ‘transcripts’ rather than to the recordings themselves Nelson seems to be assuming that other researchers will endorse his own transcriptions if they gain access to the recordings. This, of course, would not necessarily be the case.<sup>3</sup>

In another section, where Nelson introduces more focused linguistic considerations, he expresses himself rather naïvely. He makes the very obvious point that the ‘grammar and syntax’ [NB: syntax is a **part** of grammar] of a hitherto unknown language such as this are themselves unknown – and goes on to state that distinguishing between lower- and upper-case letters would therefore be ‘useless and misleading’ (because sentence-boundaries and such cannot be determined). Nelson does not seem to be aware that phonetic and phonemic transcription systems simply do not distinguish between lower- and upper-case letters as do many alphabets used for everyday purposes, because in such systems the use of visually different symbols (such as *A* and *a*) would imply different sounds/phonemes. And in many other languages as usually written there is no distinction between lower and upper cases, in any event – or else the distinction exists but is used otherwise than in English.

Nelson goes on further to state that ‘since words cannot be known, and only suspected in cognates’, Bigfoot-utterances will be given ‘as individual morphemes (or syllables)’. This is thoroughly naïve and confused. By

‘words’ Nelson presumably means ‘word-boundaries’; but he does not specify how he would **expect** word-boundaries to be determined (this might involve phonology, morphology, syntax, etc.). Next, it is not at all clear what Nelson means by the expression ‘suspected in cognates’. The mainstream linguistic notion of a ‘cognate’ appears irrelevant in context; and, while it is possible for a competent linguist to **guess** at what Nelson might really be referring to here, readers should not have to guess at such things.

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***Nelson goes on further to state that ‘since words cannot be known, and only suspected in cognates’, Bigfoot-utterances will be given ‘as individual morphemes (or syllables)’.***

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It is true that, even if the grammar of a hitherto-unfamiliar language is so obscure that there are major difficulties in identifying word-boundaries (assuming that words *per se* **exist** in the language!), the **morphemes** (meaningful word-parts) are sometimes less difficult to identify, given that morpheme-boundaries are often more immediately apparent in data than word-boundaries. This would depend upon the morphological patterns displayed by the unfamiliar language (see further later). Further: even in the absence of grammatical information it might be possible to identify **syllables** and perhaps their boundaries, since ‘syllable’ is a phonetic and phonological notion. But even here there are issues: the definition of the term *syllable* is in fact quite awkward, and a phonetic sequence which counts as a syllable in the phonology of one language may not count as one in another.

In addition, syllables and morphemes are entities of quite different kinds (phonetic and/or phonological versus grammatical), cannot be paired off one-to-one in a given language (except in altogether

exceptional languages such as Chinese) – and by no means always coincide in languages like English. Unlike a syllable, a morpheme **must** have an identifiable meaning (either lexical as in word-stems such as *boy* or *think* or grammatical as in plural or tense markers); and it **may** correspond with a syllable but may alternatively be shorter than a syllable (for instance a single consonant phoneme as in the plural marker *-s* in *cats*) or made up of several syllables (as in *elephant*).

Nelson’s transcriptions represent the sequences of sounds as divided by spaces into what appear to be syllables or near-syllables (mostly – but not all – containing one vowel each); but in the absence of detailed analysis or specific comment on apparent meanings it is not clear whether Nelson means here to equate morphemes and syllables, or indeed if he understands/accepts the standard notion of ‘morpheme’.

These conceptual and methodological problems suggest that, while Nelson obviously has **some** knowledge of linguistics, his expertise in the discipline is seriously lacking.

Nelson provides his own criteria for the assessment of the eligibility of would-be transcribers of the material. These are slanted in favour of those who, like himself, might be identified as ‘crypto-linguists’, especially with a military background. While Nelson does allow that professional linguists too might qualify, he applies very stringent criteria, especially in respect of acceptable ‘transcription programs’, and apparently under-rates the cross-linguistic (and cross-dialectal) phonetic training which all serious linguistics students undergo. Most professional linguists would disagree with him in respect of these matters. In addition, as I noted in Part 1, Nelson’s ‘crypto-linguistic’ expertise, while not wholly irrelevant, would not seem to be as centrally relevant as he suggests. Indeed, linguists would call for an analyst to have a better knowledge of linguistics proper than Nelson displays here. Of course, Nelson himself might use his own criteria to exclude their alternative interpretations of the data

from consideration. This is not necessarily a deliberate move on his part; but see Part 1 and below for other ways in which Nelson may be seeking to avoid professional criticism (by restricting access to original recordings of the material, etc.). It may be that neither Nelson and his associates on the one hand nor the community of academic linguists on the other will ever be persuaded to take seriously the views of the other 'side' on such matters.

(ii) I turn now to Nelson's own stated or implied criteria for assessing whether or not the recorded material should be regarded as genuine language. These he introduces with his arguably pretentious term 'Sasquatch Language Recording Syllogism' (explicitly referring here to the use of the term *syllogism* in logic).

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**As things stand, Nelson's criteria involving the 'characteristics' of language are covert and thus unclear.**

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At the outset, Nelson defines 'language' as 'utterance demonstrating the characteristics of human language'. These characteristics presumably include those explained in Part 1. But Nelson himself does not identify them at all; he provides here no evidence of having considered them seriously in this context. As things stand, Nelson's criteria involving the 'characteristics' of language are covert and thus unclear. They do not support his view that the material to hand here is linguistic, or provide any evidence of his own expertise in the discipline, which – as has been shown – is already in question. If linguists knew what Nelson's criteria actually were, they might simply disagree with them. And, applying familiar criteria to the data, interested linguists will come to their own conclusions with respect to Nelson's judgment that language proper is in question here.

Nelson thus appears to accept the material as genuinely linguistic without

furnishing adequate justification. In correspondence, he states this conclusion dogmatically, saying for instance: 'I can tell you this; these utterances are linguistic, by the human definition of language. They are not glossolalia ['speaking in tongues' MN]. These beings are much more like us than we previously thought'. Here too he provides no supporting evidence; and he has ignored further emails requesting details of his analytical methodology and his evidential/argumentational basis for being so very confident that genuine language is in question here. As noted in Part 1, this is obviously an unsatisfactory procedure.

In addition, **given** this viewpoint Nelson cannot comfortably claim that the material is **altogether** unlike human language in structural terms. Indeed, he is perforce dealing with a corpus of data which is almost certainly **too small** to yield reliable evidence on the degree of structural similarity between the systems exemplified and human linguistic systems. But obviously he remains very concerned with the question of whether or not the material is of non-human origin. The main type of evidence which **can** be invoked in these circumstances is phonetic evidence which might be indicative of inter-species differences in the form of the vocal tract. I thus turn now to the question of whether or how far the material should actually be regarded as non-human in origin (whether linguistic or not), in these latter terms.

(iii) This issue was introduced in Part 1 of this paper. Both Nelson and fellow-analyst Nancy Logan claim that the vocalisations recorded, as a corpus, could not have been produced by humans. Nelson for his part claims that the recordings involve a frequency-range greater than is possible for human voices, in both directions (higher **and** lower). He also refers in more general terms to prosody and resonance features. Logan confidently asserts that the tapes are not faked, and that the vocal range is too broad to be

made by a human. (On Logan's ideas, see

<http://www.bigfootsounds.com/logan.asp>,

<http://www.bigfootsounds.com/experts-point-of-view/nancy-logan/>.)

However, as noted in Part 1, such judgments have been disputed.

Nelson also claims that Bigfoot-language is (mostly) spoken 'approximately twice as fast as any known language', and reports that the recordings have been slowed down for the purpose of accurate transcription. (This should be borne in mind when considering any details discussed here or in any further work.) Logan suggests that this effect, specifically, could not be replicated by humans, but provides no evidence for this claim.<sup>4</sup>

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***Nelson also claims that Bigfoot-language is (mostly) spoken 'approximately twice as fast as any known language'.***

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In any event, the presence of clearly non-human **sounds per se** (whether or not produced by an animal such as Bigfoot) would not in itself be especially dramatic unless the material was also shown to be genuinely linguistic (see Part 1). And in fact the alleged dramatic differences between the sounds in question and those of human languages involve, at most, **only** (some of) these 'suprasegmental' features such as intonation. Suspiciously, the marked unfamiliarity of **phoneme-length** sounds which might be anticipated in a genuine non-human **language** is not found (as will be seen).

The conclusion must be that the linguistic nature of the material has not been demonstrated – unless by extraordinary chance some specific feature(s) of the very small corpus should prove so very dramatic and decisive as to demonstrate this. As far as I know, this has not occurred.

(iv) Here I report in specific terms on my analysis of Nelson's analysis of the data. As noted above, Nelson's

transcription system appears dubious (more on this general issue follows); but the details of his transcription of the material are necessarily treated in these terms below.

Re the transcription system (and his application of the system to the data): Nelson lists the ‘phonemes’ he finds in the data, with minimal explanations of how each ‘phoneme’ sounds, couched in terms of English words. As noted in Part 1, he does **not** provide methodological details of this analysis so as to justify his decisions as to whether any given pair or set of the relevant phones (sounds) are to be treated as allophones of the same phoneme or separate phonemes.<sup>5</sup> Now non-linguists often confuse phonetics and phonemics, or (tendentiously or out of limited knowledge) use the technical-sounding term *phoneme* to mean ‘phone’. It is not clear how Nelson, whose own knowledge of linguistics appears limited, is intending to use the term here. But even if the term is being used in a standard manner, any such analysis – especially in the exotic context of non-human phonation – clearly **requires** justification, if only (a) to state (if this is the case) that each phoneme displays only one allophone in the data and (b) to **demonstrate** the genuinely phonemic status of each identified phoneme by means of observed contrasts and distributional patterns involving the phonemes (etc.). If, instead, the sounds listed are simply phones and no phonemic analysis is being offered, this should be explicitly stated, and the term *phoneme* should not be used. (On one especially difficult case, see Note 7.)

Specifically, it is not clear whether the symbol > (glossed as ‘phoneme drawn out’ and added after phoneme symbols) indicates (a) an allophone (phonetically longer) of a given phoneme or (b) a different, contrasting phoneme which is otherwise phonetically similar but is inherently longer. From Nelson’s wording, one assumes the former (in which case each of the phonemes in question **does** have at least two allophones); but this

should be made explicit (or it should be acknowledged that the matter is not clear).

The 31 phonemes listed (including the five with ‘umlauts’, on which see below; see further below on Nelson’s ‘compound phonemes’) imply a phoneme system of approximately average size for human languages (English accents vary between 40 and 45 phonemes). Even more suspiciously, they also correspond closely with some of the phonemes/phones most characteristic of modern western Indo-European (IE) languages such as English; there are no ‘exotic’ phones such as those typical of non-IE languages (unless one counts the ‘tongue click’ represented here by lower-case c, which occurs world-wide as a non-linguistic vocal gesture – used for instance to ‘gee up’ horses – but is a phone proper in only a few, mainly African language families). Furthermore, all of the **sequences** of sounds/phonemes transcribed are also familiar and non-‘exotic’.

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***The phonology of Bigfoot-language, if the language is genuine, appears very similar to those of IE languages and in particular to that of English.***

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Indeed, **all** of these phones/sequences other than the tongue click occur not only in IE but in English specifically, although the glottal stop and the sound here represented by Rr are confined to certain accents. This fact is thrown into high relief by the fact that Nelson can comfortably illustrate all these phon(eme)s except the glottal stop (unillustrated) and the tongue click with English words (and, except for Rr, without any reference to specific accents or any other additional details). In other words, the phonology of Bigfoot-language, if the language is genuine, appears very similar to those of IE languages and in particular to that of English. And this point is, of course, connected with the decision to transcribe the material into imitated

spelling (the ‘English Reformed Phonetic Alphabet’) instead of the much more versatile IPAA (which, given accent differences within English, would **still** have been much preferable).<sup>6,7</sup>

However, it is obviously highly unlikely that the phoneme system/inventory of a non-human language, and/or its phonetics/allophonics, would really be so very ‘familiar’. Especially given the probable vocal-tract differences, such a system would be expected to include at least some sounds of very different kinds (which would have **required** the use of IPAA or another such means of transcription) – even if the phoneme inventory were (as might be predicted in the case of a non-human primate) smaller than that proposed by Nelson. Note that Maori, for instance, has a very small phoneme inventory which nevertheless includes a consonant found in no European language. This suggests that either the transcription or the material itself should be deemed suspicious.

Nelson uses an ‘umlaut’ as a diacritic (accent-mark) over five of his 31 symbols (A, E, I, O, U), thus distinguishing these symbols from the equivalent five without umlauts. He announces that he uses an umlaut rather than a macron here, to avoid confusion. This is a strange decision; the umlaut has **very** seldom been used as a macron is. Nelson does not in fact **state** explicitly that the umlaut, as he uses it here, is intended to serve the **normal** linguistic use of the macron, which is to represent phonetic or phonological vowel-length: long as opposed to short; but his English example-words indicate that this is so. Nor does Nelson explain that the macron, a diacritic favoured in more traditional sub-disciplines such as comparative philology, is equivalent to the now more familiar colon as used in IPAA. Nelson should also, again, have specified whether the relevant vowel-length differences are phonemic – as one might imagine – or only allophonic. And he should further have explained how the umlaut as used here

contrasts with his symbol >, which, as stated above, itself represents vowel-length (for example, by stating explicitly that the former symbol indicates different phonemes while the latter merely indicates different allophones of the same phoneme – if this is indeed what he intends; see above).<sup>8</sup>

Nelson also lists ten ‘compound phonemes’. This is a non-standard term and it is not wholly clear why these ten phone(me)s are grouped together (but see below), especially as only eight of them are transcribed here with digraphs such as KH and SJ; the remaining two are transcribed with single Greek letters. This last decision, though unexplained, is itself not wholly unreasonable, as both items are in fact single (distinct) phonemes in English despite the fact that in conventional English spelling they are both represented by a digraph (indeed by the same digraph, *th*).

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All ten of this second group of phones/sequences occur in English, although the sound represented by KH is confined to a few accents (notably Scottish, as written with *ch* in words such as *loch*). Again, this is obviously highly anomalous.

Six of the ten (including the two conventionally spelled in English with *th*) are single phones (and indeed they are simple phonemes in English); three are phonetically more complex and might be treated either as single phonemes or sequences of two closely-linked phonemes (one is a ‘diphthong’ and two are ‘affricates’). The final phon(em)e – the sequence [ju:] as in English *you*, *tune*, etc. – is phonetically a sequence of two phones which is in some respects treated by English phonology as a single phoneme, is

often so perceived by hitherto untutored native speakers learning linguistics, and is in some words (such as *tune*) spelled with *u* as if it actually were one phoneme. But in other words [ju:] is spelled with digraphs or polygraphs (as in *you*). Six of the other nine items (again including the two conventionally spelled with *th*) are normally spelled with digraphs in English, and two more are often so spelled; the tenth item, /ʒ/ in *azure* etc., is normally spelled with a variety of single letters (mainly S or Z), but it is also one of the rarest phonemes in English.

Thus, these ten items may be conceived by Nelson as ‘compound’ – and grouped together and individually transcribed as they are – in part **because of specifically English spelling conventions**. Maybe to disguise this fact, the specific transcriptions chosen here are sometimes unnecessarily ‘exotic’ in appearance; for example, SH could have been used instead of SJ for the initial consonant of English *shirt*. And in at least six of these ten cases a single symbol (even if it had to be taken from IPAA or simply invented) would have displayed the phon(em)e system more accurately and unambiguously. Once again, Nelson’s treatment of this aspect of the material appears weak.<sup>9</sup>

Overall, a linguist would expect a considerably clearer and more complete presentation than what Nelson offers, with justification of analyses, distinction between phonemes and allophones, etc. But, as noted, the system outlined is highly suspicious in character, even on the basis of the unsatisfactory account provided by Nelson. If this material really is linguistic in character, it would seem unlikely that it emanates from a non-human source, or even that it represents a non-IE language.

Nelson’s definition and use of further symbols representing ‘suprasegmental’ features such as intonation (and his instructions to researchers collecting data in the field) suggest that he believes that phonetic data (notably intonation data) in an

altogether unfamiliar and ‘exotic’ language can be used as reliable indicators of: (a) the emotional state of the vocalising entity (this might **possibly** be so but in a cross-species situation it certainly cannot be taken as given) and (b) whether or not the ‘utterance’ is a question, a command, a ‘direct response’, etc. Intonation patterns characteristically associated with responses, interrogatives/questions and imperatives/commands vary very considerably between human languages (some of which, for phonological reasons, make **minimal** grammatical use of intonation) and even between accents/dialects of the same language. It is simply not possible to arrive at such judgments with any reliability when the language in question is unfamiliar, and this is again all the more the case in circumstances such as those in question here. Again, Nelson’s linguistic expertise appears lacking.

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***Overall, a linguist would expect a considerably clearer and more complete presentation than what Nelson offers,***

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As noted, I am not in a position to comment on the actual recordings analysed by Nelson. What I can comment on is the recorded material presented on the CD supplied with Morehead’s book. Unfortunately, this material is not especially interesting or impressive in this context. For the most part, the very brief extracts are not clearly linguistic in character, to say the least. The one extract which does appear to be linguistic contains no ‘exotic’ phones, and it sounds (a) as if it was produced by a definitely human voice and (b) as if it was recorded at very close range. I am not suggesting that this extract has been faked, but it is certainly anomalous in context, and given the extreme brevity of this specific corpus of data it is not clear how it could be analysed further with any great expectations as to findings.

Of course, if these recordings really do represent language or something comparable the main goal (especially for non-linguists) will be to arrive at an understanding of what they **mean**. But, as noted in Part 1, arriving at this point might be even more difficult than analysing the material in structural terms. At present it is wholly unclear how far semantic information (word- and/or utterance-meanings) could rationally be ascribed to such material. Even Nelson and Morehead do not commit themselves heavily on this front, and where they do make suggestions these are not supported adequately (see above on intonation, etc.).

Although meanings are eventually to be sought if the material is as described, it is sometimes possible to identify such material as linguistic, in general terms, **without** any meanings being known (whether or not the actual sounds are available; this depends upon the particular features at issue). See Part 1 on the features which distinguish human language from communication systems of other kinds.<sup>10</sup> Where the sounds **are** available or where a reliable transcription is presented, the phonetics and to a limited extent the phonology of a (putative) language can also be examined in the absence of meanings. Naturally, analysis of **grammatical** structure is difficult in the absence of semantic information, but some patterns can sometimes still be discerned. For example, if word-boundaries can be established from the phonology (or the orthography, where relevant) it can be determined how far the words of a language tend to be 'inflected' with grammatical affixes (this was accomplished for the Cretan 'Linear B' script before the language represented was identified and the texts deciphered, and some specific known languages thus became more or less likely 'candidates' as work progressed further). But by Nelson's own admission information about word-boundaries and such is not apparent in his material (see above). And of course **full** analyses would obviously have to

await larger amounts of semantic information in any case.

In addition, even the relatively substantial body of data presented in transcription by Nelson is very small; a linguist would require longer samples (whether or not meanings were available) if the extracts were to be of serious use, especially in determining grammatical patterning.

Ideally, what is needed is a series of analyses of all recordings which are now or later become available, by several independent analysts having suitable expertise, training and qualifications – if possible acceptable to both Nelson and to mainstream linguists (but see above). If the proponents of claims such as these show themselves more willing to co-operate with the world community of scholars, this may eventually be achievable, and we may thus come to understand the true nature of this material.

### Notes

1. See also other websites created by Morehead and Nelson, such as <http://bigfootevidence.blogspot.co.uk/2011/10/samurai-chatter-spoken-language-of.html?m=1>.
2. In addition, it is not clear how Nelson can be as confident as he is that the 'language' under scrutiny here is non-human and at the same time cheerfully transcribe it into imitated spelling based on the phonology of one human language or human language in general. Even transcriptions into language-neutral IPAA could be challenged in this context. But see below on the surprisingly close correspondence of the sounds in question with English phones, which provides a plausible explanation of Nelson's decision but itself suggests that the transcribed material is, at least in this respect, rather suspicious in character.
3. Nelson's stated intention that any future transcription be 'standardized' on the basis of his own specific system is also, naturally, subject to the views adopted by other researchers regarding the relative merits of the various

systems available and the accuracy of Nelson's specific analyses and transcriptions.

4. Logan also states confidently but without specific evidence that the Bigfoot language shows signs of complexity and communicative structures, possibly includes profanities (how could she deduce something so specific?), etc., and in general her authority cannot be endorsed. See Part 1 on her apparent lack of linguistic training. Morehead for his part has not been forthcoming on the identity of any of the other linguists who have supposedly endorsed Nelson's work; maybe **no** linguists additional to these are involved.

5. A 'phone' is a speech-sound considered 'phonetically', that is, as a physical entity, in terms of its articulation with the speech organs, the associated acoustic effects in the air and the auditory reception of the sound in the ear and brain of a listener. In any given language (or accent), the phones used are grouped into 'phonemes'. The phones which are members of a given phoneme in a given language (its 'allophones') are related to each other in various important structural and distributional ways; and they are perceived by linguistically untutored native speakers of that language (though not by native speakers of other languages with different systems) as the same sound, even if they are seriously different in phonetic terms. For example, the two 'L' sounds in the English word *lull* are allophones of the same English phoneme (/l/). The second allophone is found only at the ends of syllables or before consonants, the first elsewhere (this is their distributional relationship). But in most accents of English they are phonetically very different (and native speakers of other languages hear them as very different).

The phonemes themselves are involved in the 'phonemic'/'phonological' structure of the language/accent: which phonemes and contrasts between phonemes exist, which sequences of phonemes are possible in a word, etc.

6. Similar effects occur in allegedly channelled material. For example, all but one of the phones found in one unidentified ‘language’ extensively channelled (without any understanding) by one particular Australian medium are common in English, and the remaining phone is common in Dutch, the first language of the medium’s wife.

7. Nelson also identifies the Bigfoot-phon(em)e represented here by L as ‘l in [English] lull’; he ignores the fact that the two L-sounds (allophones) in *lull* are (in most accents of English, including General American) phonetically very different (see Note 5). Either he is implying that Bigfoot-language is structurally identical with (most accents of) English at this point (this would be implausible, although without access to the recordings it is impossible to determine the truth), or he is wrongly regarding the two allophones of /l/ in English as

phonetically indistinguishable – or he is implying that in Bigfoot-language (not in English) they are freely substitutable for each other (‘in free variation’).

8. Nelson’s actual sample of a macron is in fact instead a hyphen (mid-way in height on the line of characters) rather than in the space above a character (where a genuine macron is written).

9. Nelson goes on to say that he expects that his ‘alphabet’ will grow as additional recordings are collected, and that aspects of alleged Bigfoot communication such as ‘howls, whoops, growls, screams, whistles, and mimicry of other forest animals’ (!) may come to be seen as carrying linguistic meaning, as indeed may ‘wood- and rock-knocking or tooth-popping’; he even suggests that ‘manipulated tree, limb and stick formations’ might represent **written** Bigfoot-language ‘much like human runic or pictographic writing systems’.

This last comment suggests a naïve view of human writing systems; and overall one cannot avoid thinking that Nelson’s view of what might constitute linguistic behaviour has been widened excessively at this point.

10. There is obviously a danger in cases such as this of an analyst over-extrapolating and relying unduly on his ‘gut-reactions’ (even though these may be quite well grounded in knowledge and experience). I do not say that this has happened here; but this effect must be carefully guarded against. Despite Nelson’s cited comment ‘they are not glossolalia’, the nature of many cases of glossolalia and other such phenomena suggests that what sounds very much like language (to lay people or even to those with some relevant training) need not really **be** language. But it is difficult to assess the impact of such effects in cases where most of the actual data are not available.

## REVIEWS AND COMMENTARIES

*Strange Linguistics: A skeptical linguist looks at non-mainstream ideas about language* by Mark Newbrook, with Jane Curtain and Alan Libert, 2013. Linguistics Edition series, 93, Munich: Lincom Europa, ISBN 978 3 86288 419 3.

### Ray Ward

Mark Newbrook is known to ASKE members for his contributions on linguistics. I approached this hefty book (388 pages of small print) with some trepidation, but found much of it very interesting, particularly the strong connections between unconventional and irrational beliefs about language and such beliefs generally.

The book aims to outline and critique a range of non-mainstream ideas about language proposed by writers who are not professional linguists. It begins with a preface describing this aim, a useful glossary of linguistic terms, and an introduction discussing the similarity between unorthodox views on linguistics and general ‘New Age’ views at variance

with those of mainstream scholarship - there are fringe, cult and pseudo-linguists just like fringe, cult and pseudo-scientists. It proceeds to a discussion of ‘bad English’, the idea that language is becoming ‘worse’ or ‘looser’, and the confusion between the distinct concepts of language and script and between language and speech (a creature which cannot speak may have language; one which can produce human-like speech sounds, such as a parrot, may not).

There is indeed much here that is familiar to anyone active in the skeptical world, and relevant to the wider concerns of skepticism: people seeing what they expect to see and clinging to beliefs which have been

comprehensively demolished; people who naïvely expect quick acceptance of their ideas and, when they are rejected, accuse the mainstream of being hidebound, conformist, etc.; those who reject the mainstream from the outset, often displaying inconsistency in rejecting orthodoxy while craving acceptance by the scholarly world; conspiracy theorists - ‘They are suppressing the truth!’; orthodox scholars’ reluctance to comment for fear of giving fringe material credibility which they think it does not deserve; non-mainstream theorists who either ignore criticism and proceed as if no criticism had been offered, dismiss criticism without comment or with brief comments

adducing bias, jealousy etc., or even sue or threaten to sue skeptical critics for misrepresentation or defamation; and non-mainstream linguistic ideas as part of the wider tradition of pseudo-history, holding that the accounts of history presented by orthodox scholarship are false.

One thing familiar from paranormal claims is assertions for which concrete evidence is never forthcoming, an example from the linguistic field being the alleged mutual intelligibility of widely separated languages - Irish Gaelic understood by indigenous Mexicans, Latvian by Tatars, Welsh by natives of the American Midwest, etc.

Attitudes to language can reflect national pride: Newbrook mentions something which I recall from my university studies of Turkish politics, the attempt in the 1920s to claim that Turkish was the ancestor of all languages, partly for the practical purpose of persuading Turks to accept borrowed words for innovations (if all words were originally Turkish, it was legitimate to 'reclaim' them), but also for nationalistic reasons.

I was fascinated to learn that there are 'creationist linguists', part of the creation science/intelligent design movement. Like creationists who deny that all life on Earth evolved, they deny that language evolved, asserting that God created language. And, just as creationists declare that God created each species individually, some deny that specific languages developed from earlier ones, claiming that God created each language separately. Most are fundamentalist Christians and Jews who accept the literal truth of the Bible (including the Tower of Babel story, explaining the diversity of languages as a single state ended by divine intervention) and a very short time depth for human history and thus human language. In a further echo of creationism, some creationist linguists are trained in linguistics, just as some creationists are trained in biology. The relevance of this for general skepticism is, again, clear.

A related theme is language from mysterious sources - glossolalia

(speaking or writing in unfamiliar languages), oral and written 'channelling', the 'electronic voice phenomenon' (EVP) publicised by Konstantin Raudive, xenoglossia (people speaking or understanding languages they have not learned, differing from glossolalia in that they are not supposedly in a trance, but as a second personality who usually appears not to know the language of the speaker's main personality), and foreign accent syndrome (in which people, often after a head injury, manifest a new accent). Again, a suitably skeptical attitude is taken. EVP is almost certainly an artefact of the listening process - people hearing what they expect to hear, similar to reverse speech, discussed later. Xenoglossia subjects typically display minimal and unimpressive command of the other language, which could have been obtained from limited, and perhaps forgotten, studies, or perhaps unconscious exposure to the language or a related one.

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***The discussion of mysterious writing systems brought back memories of people who I thought were mercifully forgotten.***

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The discussion of mysterious writing systems brought back memories of people who I thought were mercifully forgotten: George Hunt Williamson and George Adamski (who both claimed contact with aliens), Marcel Homet, Immanuel Velikovsky, Erich von Däniken, and the wonderfully-named Otto Muck. The Kensington Stone, whose 'runic' inscriptions were claimed as evidence that Scandinavians penetrated deep into North America, but is in fact indubitably a fake, is mentioned, as are Glözel, the Phaistos Disk, etc. Supposed contacts with aliens who communicate in ways very similar to human speech, sometimes, indeed, speaking perfect English or other human languages, are discussed

suitably skeptically, given the very different ways in which extraterrestrials might communicate: they may not use auditory-acoustic means at all and, even if they did, might have vastly different apparatus, acuity, frequency, etc. Telepathy and similar suggested modes of communication also have their problems: any significant communication would still have to be in some form of language. (However, the 'automatic writer' with whom Houdini had a session was Sir Arthur Conan Doyle's wife, not, as said in this book, Doyle's mother. The book doesn't mention that Houdini received a communication supposedly from his dead mother - perhaps this is the source of the confusion with Doyle's mother - and pointed out that it was in English, a language his mother did not know!)

Reverse speech is the idea that recordings played backwards reveal hidden messages. However, proponents prompt listeners with what they should expect to hear and, as seen with EVP, if you are told what you should hear, you will hear it. It's a form of pareidolia, the phenomenon by which people also see what they expect to see, which is why they perceive Jesus, the Virgin Mary, Mother Teresa, etc. in clouds, trees, window reflections, patches on walls, toasted cheese, buns.... The book mentions Chris French's demonstration of this, which I have heard many times. He plays Led Zeppelin's *Stairway to Heaven* backwards without telling his audience what they are supposed to hear and, of course, all they hear is gibberish; then he plays it with the 'satanic message' displayed and - one hears it perfectly clearly!

We move on to non-historical claims of allegedly mysterious scripts, codes, texts etc., such as the religious texts supposedly containing patterns which could not have come about by chance and carrying important messages, prophecies, etc. However, the previously-discussed chance similarities between unrelated words come into play, as does the fact that one can find a wide range of spurious



messages in any sufficiently lengthy text. References to twentieth century assassinations and the death of Diana, Princess of Wales, were found in *Moby Dick*! Of course, no-one seriously believes that Herman Melville predicted these things and hid the predictions in his book; it's an example of how anything can be found if one looks hard enough.

Newbrook and his collaborators, as you may have gathered, spread their remit widely, discussing may fringe matters that may not be considered specifically linguistic. One is supposedly hidden numerological messages, for example isopsephy, the idea that if letters are paired with the numbers 1-26 a name can be scored by adding together the digits and continuing to add until a single digit is obtained (e.g., Ray would be  $18+1+25=44=4+4=8$ ); it is then held that people with that name will be likely to display whatever characteristics are ascribed to that number. It is an excellent illustration of irrational thinking. Should the full name (e.g., Raymond) or a shortened form (Ray) be used. What about Michael/Mike, where the shortened form contains a letter the full form does not? And, as Newbrook says, the numbers could be summed in many ways; any one way is arbitrary. And, of course, like many irrational beliefs, it ascribes fundamental meaning to human inventions, in this case base 10. Similarly, different alphabets would yield different results, and alphabets are, of course, also human inventions.

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***I declare an interest: I am a Committee Member of the Queen's English Society, which defends high standards of English.***

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On we go to the 'languages' of animals, and the alleged ability of some animals to learn human languages, something comprehensively demolished by Steven Pinker in a book Newbrook refers to, *The Language*

*Instinct*. Again, all it really amounts to is people seeing what they want to see. Other themes include claims of accelerated foreign language learning, feminism and language, and the doubtful business of graphology: graphologists differ, each one insisting that their views are the only right ones, again reminiscent of the way in which different fringe practitioners (astrologers, for example) come to different conclusions from the same facts.

Newbrook discusses the recent spate of books by what Pinker called the English language mavens, people like Lynne Truss and John Humphrys who bemoan what they see as falling standards of English. While not greatly relevant to the theme of connections with general paranormal and irrational beliefs, this is interesting to anyone concerned with English (I declare an interest: I am a Committee Member of the Queen's English Society, which defends high standards of English). Such hopeless schemes as spelling reform, Basic English, and that classic example of something doomed to failure from the start, artificial languages like Esperanto, are mentioned; as Newbrook neatly sums up: '[I]t appears unlikely that any auxiliary language will ever be learned by sufficient numbers of people and accepted for general use in an international context - especially given the current dominance of English' - to which I would add that he can say that again, and would replace 'unlikely' with 'inconceivable'.

Newbrook's comprehensiveness can be seen in his inclusion of the science fiction theme of first contact with aliens or artefacts left by them, and the perhaps over-optimistic assumptions about the ease of interpreting their languages through shared scientific and mathematical constants, the example best known to me being a story the book refers to, H. Beam Piper's 'Ominlingual', in which a long-dead Martian civilisation is found to have left a copy of the periodic table of the elements; while

the table is, of course, of universal validity, it may not have been perceived and presented in the same way by another intelligent species. Also interesting is the discussion of fictional developments of English, such as George Orwell's Newspeak in *Nineteen Eighty-Four* (which, incidentally, is not entitled *1984*) and the debased English of Russell Hoban's post-nuclear-war novel *Riddley Walker*. Tolkien's Elvish languages, *Star Trek*'s Klingon, Richard Adams's Lapine in *Watership Down*, and others are also discussed. .

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***'It appears unlikely that any auxiliary language will ever be learned by sufficient numbers of people and accepted for general use in an international context.'***

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Newbrook ends by saying that in the book he has covered a great deal of ground (certainly true), that he has been obliged to exclude some interesting topics (one wonders what they are, given the book's comprehensiveness) and limit discussion of others severely, and that many issues could not be covered in the depth that might ideally be desired, but he hopes it will be found useful and interesting. That it certainly is. However, the system of footnoting and referencing is confusing, and the references have the irritating feature of giving places of publication but not the more useful publishers. The main drawback, however, is the lack of an index, which is very regrettable indeed and is not, as Newbrook hopes, compensated for by cross-referencing; the book would be far more useful if it were possible to refer quickly and easily to what it says about particular languages, people, topics etc.

## THE EUROPEAN SCENE

**A**SKE 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.

### Denkfest 2014

September 11-14  
Zurich, Switzerland  
Core topics: Medicine & methods, evolution, humanism in the 21st century. Talks in English and German with simultaneous translation. See:

<http://www.denkfest.ch/>  
<https://www.facebook.com/denkfest/inf>

### The 16th European Skeptics Congress

This will take place in London in 2015 and will be hosted by ASKE. Related organisations will also be involved. Further details will be announced later

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## OF INTEREST

### SCEPTICISM, SCIENCE AND RATIONALITY (GENERAL)

#### Sense About Science

From Chris Peters of the 'Ask for Evidence Campaign'.

'In our first 'themed week' in September we shared people's experiences of hunting down the evidence behind miracle cancer cure claims. See:

<http://www.senseaboutscience.org/pages/ask-for-evidence-on-miracle-cures.html>

'For some campaigning inspiration take a look at the Ask for Evidence video put together by comedian Gemma Arrowsmith, highlighting the importance of questioning 'miracle cures'.

<http://www.senseaboutscience.org/news.php/350/new-miracle-cure-an-askforevidence-sketch>

'You may not have Gemma's comedic gifts but there are other ways you can help the campaign, for instance:

'Ask for evidence about a claim – then tell us and share what you've done (on our website) with an Ask for Evidence case study.

[http://www.senseaboutscience.org/pages/a4e\\_examples\\_of\\_evidence\\_hunting.html](http://www.senseaboutscience.org/pages/a4e_examples_of_evidence_hunting.html)

'Add the Ask for Evidence button to your website:

<http://www.senseaboutscience.org/pages/ask-for-evidence-webbutton.html>

'Making Sense of Drug Safety Science: Investigating the science of side effects, our public guide developed with the MRC Centre for Drug Safety Science. At:

<http://www.senseaboutscience.org/pages/making-sense-of-drug-safety-science.html>

'If you can help get the guide into as many hands as possible, email:

[jesper@senseaboutscience.org](mailto:jesper@senseaboutscience.org)

'Ask for Evidence themed week on rubbish and recycling claims:

<http://www.senseaboutscience.org/pages/ask-for-evidence-on-recycling-claims.html>

'The next themed week in the plan will be public health advice claims. Get in touch with me to get involved.

'Ask for Evidence was launched in Scotland at Glasgow Skeptics in the Pub with campaign supporters Research the Headlines:

<http://researchtheheadlines.org/>

'I'm keen to come and talk to your journal club, post-doc group or any other gathering about our plans – get in touch. Whilst in Scotland lots of early career researchers were busy asking for evidence at our Voice of Young Science media workshop. You can read

accounts from some of those who took part on our VoYS pages at:

<http://www.senseaboutscience.org/pages/past-workshops.html>

'If you're thinking about Christmas presents visit our Christmas Reading Room:

<http://www.senseaboutscience.org/pages/christmas-reading-room-2013.html>

#### Wild Culture

'The Journal of Wild Culture is a brand new magazine that focuses on the broad and fertile intersection between culture and the environment. This manifests itself through, among other things, the desire to foster greater understanding between the arts and the sciences, to open up academic thinking to new audiences, to explore the human face of business, and to underpin everything we do with an ethical sensibility and, hopefully, a sense of humour.'.... On other hand (*That's enough of that – Ed.*)

[www.wildculture.com](http://www.wildculture.com)

#### How to think about dubious claims

'JREF is pleased to release a free 10 part video lecture series by Ray Hyman titled "How To Think About Dubious Claims" and companion course guide.

'Smart people can act stupidly by failing to apply their intelligence wisely. This course draws lessons from scientist smart people who went astray.

This course provides a framework to help you avoid their mistakes.

'Ray Hyman is a professor emeritus of psychology at the University of Oregon. Hyman's published research has been in such areas as pattern recognition, perception, problem solving, creativity, and related areas of cognition. He has written and published extensively on the psychology of deception and critiques of paranormal and other fringe claims.

'The 10 lecture video course can be found on YouTube at

[http://www.youtube.com/playlist?list=PL8MfjLNsf\\_mg9p\\_DI2jLbMPxiCVwhQ0-L](http://www.youtube.com/playlist?list=PL8MfjLNsf_mg9p_DI2jLbMPxiCVwhQ0-L)

'The companion course guide can be downloaded at:

<http://jref.swmirror.com/20730>

### **Anomalistic psychology**

From Chris French,

'To mark the publication today of my book, co-written with Anna Stone, "Anomalistic Psychology: Exploring Paranormal Belief and Experience", we are also launching a new podcast series via the Goldsmiths Podcasting Service. You can read a bit more about the book here:

<http://www.gold.ac.uk/academics/christopherfrenchexpertcomment.php>

'If you want to, you can order a copy here:

[www.palgrave.com/anomalistic](http://www.palgrave.com/anomalistic)

'Don't forget, you can get a 15% discount if you enter the code WANPSY at online checkout.

'The podcast series is produced by Ben Pester and features Ben in conversation with a wide range of researchers, artists and writers with an interest in anomalistic psychology. The link to the podcast series, "Navigating the Anomalies: A Journey through the psychology of the unexplained" is here:

<http://www.gold.ac.uk/podcasts/>

### **The social sciences**

'*Argumentum ad wikipedium and what the social sciences might learn*' by Marc Chebab

'Sadly, the hallmark of a contemporary academic career has become the

invention of a new term, whether or not the subject matter requires it.....

'[I]n contrast [to natural scientists], the knowledge we [social scientists] produce is often a lot more rudimentary and less scientific than our name tag leads you to believe. If you hear a social scientist waffling on about 'structures of co-determination' between 'material forces' and 'ideational factors' in 'social subsystems,' and you believe it sounds complicated, you are more correct than you think. Because not only does it sound complicated, but its point is to sound complicated – so that you do not realise that there is little or nothing behind it. It is a smoke screen of verbiage, aimed at making you feel stupid for even thinking about asking: "What the hell are you talking about?"

<http://www.opendemocracy.net/marc-ch% C3% A9hab/argumentum-ad-wikipedium-and-what-social-sciences-might-learn>

### **Non-reproducibility in science**

*Weak statistical standards implicated in scientific irreproducibility*

'The plague of non-reproducibility in science may be mostly due to scientists' use of weak statistical tests, as shown by an innovative method developed by statistician Valen Johnson, at Texas A&M University in College Station. Johnson compared the strength of two types of tests: frequentist tests, which measure how unlikely a finding is to occur by chance, and Bayesian tests, which measure the likelihood that a particular hypothesis is correct given data collected in the study....At:

<http://www.nature.com/news/weak-statistical-standards-implicated-in-scientific-irreproducibility-1.14131>

## **MEDICINE (GENERAL)**

### **Veterinary homeopathy**

From Niall Taylor:

The preliminary results of a homeopathy poll have been put out as a press release:

<http://www.pressdispensary.co.uk/releases/c993700/Vets-say-homeopathy->

[isnt-even-good-enough-for-the-dog.html](http://www.pressdispensary.co.uk/releases/c993700/Vets-say-homeopathy-isnt-even-good-enough-for-the-dog.html)

'In a survey of 460 veterinary surgeons, the preliminary results of which are announced today, an overwhelming 83% said that there are no medical conditions for which homeopathy could be an effective treatment in animals. This figure included the 6.3% of participants who practice veterinary homeopathy themselves, without whom the figure would be even higher...

'So strongly did veterinary surgeons feel about the matter, 78.4% felt that their colleagues should not be allowed to practice homeopathy under their professional title of MRCVS. 73% said that whilst they are still allowed to do so, pet owners should be asked to sign a disclaimer that they understand that in trials, homeopathy has been shown to be ineffective.

'The referral figures are somewhat skewed by vets not wanting to completely blow clients up about wanting to refer to a homeopath and risk driving them even further from conventional medicine.

'So, although the vast majority of vets disagree with homeopathy, a large number will either agree to a formal (vet to vet) referral or consent to the client self-referring to a vet of their choice.

A response from the British Association of Homeopathic Veterinary Surgeons is at:

<http://www.bahvs.com/response-from-the-association-re-press-release-issued-by-arlo-guthrie/>

### **The Nightingale Collaboration**

See the website below for recent activity.

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

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

### **Herbal medicine**

'Herbal medicines are frequently contaminated or contain plant species that are a substitute for the plants listed on the label or contain other species that may be a filler, a DNA analysis

has found. Some of the herbal medicines analysed were contaminated with plants that have known toxicity or can interact with other supplements or medications, the study reported...’ At:

<http://www.bmj.com/content/347/bmj.f6138?etoc=>

and

<http://www.biomedcentral.com/1741-7015/11/222> [full text, original article]

### Vitamin supplements

Most vitamins such as antioxidants don't help to prevent cancer, heart disease and dementia, and some supplements could be harmful according to the *Annals of Internal Medicine* 17.12.13 which includes three articles on vitamin and mineral supplements and an Editorial describing supplements as a waste of money.

<http://annals.org/issue.aspx?journalid=90&IssueID=929454>

### Labour and homeopathy

*Labour tells new health spokeswoman to drop her support for homeopathy.*

<http://www.independent.co.uk/life-style/health-and-families/health-news/labour-tells-new-health-spokeswoman-to-drop-her-support-for-homeopathy-8876469.html>

### Stanislaw Burzynski

*FDA documents paint disturbing picture of Burzynski cancer clinic*

‘Stanislaw Burzynski and the cancer clinic that bears his name have been the subject of concern in the medical community for years. His practices are well outside the mainstream, and he makes extravagant claims for his costly treatments.....’

<http://www.forbes.com/sites/peterlipson/2013/11/11/fda-documents-paint-disturbing-picture-of-burzynski-cancer-clinic/>

## RELIGION

### Religious discrimination

A witch who was sacked after swapping her shifts at a supermarket to attend a Wiccan ceremony to celebrate Hallowe'en has been awarded £15,000 after winning her claim for religious discrimination.

<http://annals.org/issue.aspx?journalid=90&IssueID=929454>

### Book on the soul

From Gerald Woerlee:

‘I am an anaesthesiologist in the Netherlands. One of my passions is the physiological basis for belief in the human soul and paranormal experiences such as the out-of-body experience, and the near-death experience. I have maintained a skeptical website on these subjects for several years at [www.nearth.com](http://www.nearth.com). Recently I published an extensive book on Amazon.com that should be of some interest readers. It is called *Illusory Souls*, and discusses the medical and physiological evidence for the reality of a human soul, the immaterial nature of the out-of-body experience, as well as the near-death experience. The conclusion is really very clear -- a soul with the properties defined by religious books and all believers in the reality of a separable conscious soul is an illusion. If there is a soul, then it has properties very different to those proposed by all current believers.’ See:

<http://www.amazon.com/Illusory-Souls-Gerald-Woerlee-ebook/dp/B00GG244WQ>

## OTHER UNUSUAL CLAIMS

### Telekinesis hoax

‘Unsuspecting customers at `Snice coffee shop in New York's West Village were horrified when a man spilled a drink over a woman's laptop, inducing a violent rage with paranormal consequences. The man was flung in the air and pinned multiple times against the wall, and tables and chairs appeared to move of their own accord, apparently expressing the woman's anger.’ At:

<http://www.telegraph.co.uk/news/news-video/weirdnewsvideo/10364039/Telekinetic-coffee-shop-prank-terrifies-customers.html>

### Yeti

‘Yeti DNA: has the mystery really been solved? A geneticist says samples from suspected yetis match an ancient

polar bear, but other scientists are urging caution.’

[http://www.theguardian.com/science/2013/oct/17/yeti-dna-ancient-polar-bear-scientists?CMP=fb\\_gu](http://www.theguardian.com/science/2013/oct/17/yeti-dna-ancient-polar-bear-scientists?CMP=fb_gu)

### ITV's 'Mystery Map' series

‘Just under half of all men (44%) believe aliens exist, according to a survey commissioned for new ITV programme Mystery Map.

‘It also found that a third of the population (30%) believe in ghosts and a quarter of women (25%) think dogs are telepathic. The survey, which measured levels of belief in the supernatural and unusual happenings in different regions, found that people living in East Anglia are most likely to believe in aliens, evils spirits and poltergeists.

‘Mystery Map, presented by Ben Shephard and Julia Bradbury explores some of the nation's best-known mysteries and myths such as the Beast of Bodmin Moor, the Rendlesham UFO incident as well as phenomena such as spontaneous human combustion.’ At:

<http://www.itv.com/presscentre/press-releases/itv-mystery-map-survey#.Uq9mqfRdWel>

### Does this baby spontaneously combust?

A three-month-old boy, Rahul Parumal was admitted to an intensive care unit in Chennai, India after reportedly suddenly catching fire. He suffered burns of varying severity in the latest incident with no apparent external source of ignition. His parents claimed he has had bouts of spontaneous combustion. Doctors conducted all possible tests, including a chromosome test, gene analysis and skin biopsy, to determine if he could actually ‘catch fire’ on his own. The results were negative, raising concerns about abuse.

### ‘I mistook my friend for Bigfoot’

A man who shot his friend during a hunting expedition in Oklahoma claimed that he did so because he mistook him for Bigfoot. But the police wouldn't buy it.

[http://www.wptv.com/dpp/news/local\\_news/water\\_cooler/bigfoot-hunt-gone-bad-omar-pineda-charged-in-oklahoma-case](http://www.wptv.com/dpp/news/local_news/water_cooler/bigfoot-hunt-gone-bad-omar-pineda-charged-in-oklahoma-case)

### **The psychology of spiritualism**

‘The idea of summoning the spirits took thrilling hold of the Victorian imagination – and has its adherents now. But the psychology behind spiritualism is more intriguing.’

<http://www.theguardian.com/science/2013/oct/20/seances-and-science>

## **CONSPIRACY THEORIES**

From Chris French:

‘The news from APRU is that Rob Brotherton had his viva and passed with flying colours (aka, “minor revisions” only). As many of you know, Rob’s main research interest is the psychology of belief in conspiracy theories and he regularly posts blogs at:

<http://conspiracypsychology.com/>

‘Those of you with an interest in this topic might also like to check out my “JFK anniversary” column for the Guardian from last November:

<http://www.theguardian.com/science/2013/nov/22/john-kennedy-conspiracy-theories>

## **MISCELLANEOUS**

### **Shakespeare’s Sonnets**

From Alan Tarica:

‘I thought you might enjoy my take on Shakespeare’s Sonnets.

<https://sites.google.com/site/eternitypromised/>

‘You are welcome to consider the notion that I have created an original work/adaptation in a genre of your pleasing such as speculative fiction, theory-fiction, magical realism, ekphrasis, Oulipo, satire, or anything else.

‘But I’m also quite confident that not a single “skeptic” is so far willing to credit my creativity for creating even a fictional account.

‘And not one has made any effort whatsoever to illustrate that I have not created such a work. Or seems the least bit capable of doing so.

‘Quite telling in my estimation.

‘However just to be clear it is a work that somehow magically subsumes well known alternative authorship theories. And one that reveals a complex political backstory that also magically seems to coincide with both the coincidental mystery surrounding the “Bard” and the seemingly strange history of Elizabethan England.

‘But of course the answer could not be that Stratfordian “Shakespeareans” are wrong or that an actual “conspiracy” took place.

‘So again I’m still waiting for others like you to at least have the

courtesy to recognize my obvious creative genius.

‘And unless you or anyone else has the intellect and talent to illustrate that I am wrong in this claim regarding my work, there is obviously no false dichotomy.

‘But what I’ve already conclusively demonstrated is how hypocritical and ineffectual the “skeptical” community is. Not to mention how inept and unethical the Shakespearean establishment is.’

### **Expectation and misinterpretation**

Police arrived at a house to reports of a possible domestic incident only to find the commotion was being caused by a couple frustrated by Ikea furniture.

<http://metro.co.uk/2013/11/12/domestic-incident-turns-out-to-be-couple-struggling-with-ikea-furniture-4184295/>

**KEEP LIBEL LAWS  
OUT OF SCIENCE**

The Defamation Act will come into force on January 1st 2014.

## **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 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>

### **SKEPTICS IN THE PUB**

<http://www.skeptic.org.uk/pub/>  
<https://twitter.com/SITP?refsrc=email>

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

### **LONDON FORTEAN SOCIETY**

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

The society meets on the last Thursday of each month, except July and December, at The Bell, 50 Middlesex Street, London E1 7EX.

### **CENTRE FOR INQUIRY LONDON**

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

### **CONWAY HALL LECTURES LONDON**

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

## LOGIC AND INTUITION: ANSWERS

Possible answers are as follows:

Following discussion with Adrian Simpson at the University of Sheffield, I present the following answers:

I shall refer to the two twins as S (the 'sender' of the telepathic communication) and R (the 'receiver').

1. The pictures will presumably differ along dimensions such as vividness or salience or interest. It is quite likely that both participants will look at the most vivid picture first, which will tend to increase the chance that the two participants' choices will agree. This argument might then be applied to S's further choices.

2. The possible effect described above would apply to any participants, whether closely related or not. Its effect would be intensified for twins, who would probably have similar tastes or interests. My suggestion is

that taste or interest might guide S's early choices and that these factors would be likely to be similar in both twins. Indeed, if R is explicitly trying to guess S's early choices, she might well choose on the basis of her knowledge of S's tastes or interests.

3. I seem to recall that there is a body of research on participants' choices when confronted with a row of alternatives, and that this research shows that some choices are more likely than others (e.g. people avoid the first item in a row?). This effect might be weak, but it would tend to improve the chances of R matching S's choices unless it was controlled for.

4. Another potential problem in this design is as follows. Suppose R fails to identify correctly the first picture, or another one early in the sequence

chosen by S, and therefore chooses instead a different picture. At some later point S will study the picture that was (wrongly) chosen by R and was removed from the latter's set. Clearly, it will be impossible for R to achieve the right answer on this trial, not having available the correct picture, so a second error is inevitable. Also, after the first error, R will have a picture in her set that S cannot choose, having chosen it earlier and having had it removed, so that must inevitably lead to an error (which might be the same error as the one just described or might be a new one). In short, if R makes one error she must inevitably make at least one more. (Better to have a new set of five pictures on each trial so that the trials are independent.)

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## STOP PRESS

These items have just been announced.

### From Sense About Science

'Our [first plant science panel Q&A of the New Year](#) will be on testing crops and animal feeding studies, live online from 1pm on 15th January. If there's anything you want to know about how feeding studies work and what they can tell us, send your questions to [plantsci@senseaboutscience.org](mailto:plantsci@senseaboutscience.org), post them on our Facebook page, or tweet using #plantsci – it's always busy so you can send questions now to get them on the list.

'There's been a lot of recent discussion about electronic cigarettes and Prateek Buch has written a [blog about our letter to the BMA](#) asking them for the evidence behind their call for a ban. And there's AllTrials news just in about an [agreement in Europe on clinical trial regulation](#).

'And finally, thanks for everything you've helped us with this year: launching guides to [uncertainty](#), [drug](#)

[safety science](#), [genetic ancestry](#) and [evidence based medicine](#); updating *I've got nothing to lose by trying it*; awarding the [2013 Maddox Prize](#); responding to misconceptions from [chemical exposure in pregnancy](#) to [antidepressants](#) and [lie detector tests](#); holding live Q&A's on [population decline](#), [bees and insecticides](#); our [VoYS network calling for supermarkets to change their negative marketing](#); campaigning on [AllTrials](#) and [Ask for Evidence](#), and looking ahead to the [new libel law coming into force](#) in the New Year.'

### Tom Daley

Andrea Minichiello Williams, the head of a British evangelical Christian lobby group, has reportedly suggested that the British champion diver Tom Daley is in a relationship with a man because he had "lost his father to cancer just a few years ago". Mrs Williams is an elected member of the Church of

England General Synod, the body which creates church law.

<http://www.independent.co.uk/news/people/news/uk-evangelist-says-tom-daley-is-gay-because-his-father-died-9013365.html>

### Disorganised science

An evaluation of more than 500 studies has shown that 20 years after publication 80% of the original data had vanished.

<http://www.sciencedirect.com/science/article/pii/S0960982213014000>

### 'Superfoods'

The term 'superfood' should be banned because it has no scientific or regulatory support and is little more than a marketing tool, according to Sioned Quirke of the British Dietetic Association.

<http://www.foodmanufacture.co.uk/Regulation/British-Dietetic-Association-attacks-superfoods-term>

## **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:

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