

# litmus paper

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## TODAY'S HIGHLIGHTS



Sian Ede  
Is Science the New Art?  
10–11 am/Drawing Room

Tanya Byron  
Little Angels – Coping with  
Troublesome Children  
2–3 pm/Pillar Room

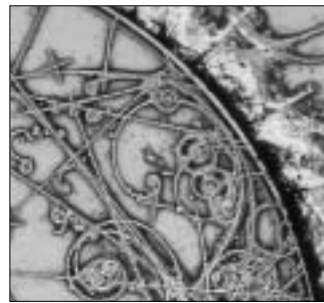
Simon Baron-Cohen  
Men, Women and the Extreme  
Male Brain  
7.30–8.30 pm/Drawing Room

## What you see: is it what you get?

by Sharon Kean

We all look at things in different ways. A lot of people believe only what they see with their eyes. However, scientists expect us to believe what they show us with complex instruments. For example, subatomic structures, which humans will never be able to view with the naked eye, supposedly exist. The pretty pictures generated by the very expensive machines at CERN prove this, theoretical physicist Jim Al-Khalili assures us; but should we believe him?

Film-maker and author Piers Bizony seems to think so. He also claims that these pretty pictures can be considered artistic, as well as informative. This I agree with. They are very attractive, especially when the nice scientist adds some colour to his traditionally black-and-white print-out. However, do they help us to look at the world around us in a



*Little things can please big minds.*

different way? I really hoped they would but, as Piers himself confessed: “We accept mathematics as the standard way of describing things.” Until we ditch the arrogant assumption that we can explain everything with equations, all the “art” in the world will not help us to change our perspective. Accepting the idea of scientists really considering life without mathematics still seems to me to need artistic licence.

## Divine asymmetry

by Gareth Lacey

Why is it that 90% of people are right-handed? The ancient Greek philosopher Aristotle believed that mothers were at fault for the dominance of right-handers. However, this popular but controversial theory has recently been discounted by a modern scientist with the disturbing hobby of analysing the sucking of thumbs by thousands of foetuses.

Chris McManus, after an initial admission of being tricked on a special left-handed version of the now defunct *Kilroy* show, gave an interesting and enjoyable account of asymmetry. This fascinating story took in the wider issues of outer space, particle physics and genetics. The answer to the initial question, as many of you may have already guessed, lies in the asymmetry of subatomic particles.

Pleasingly, this answer is not only baffling to you or me, but also to the greatest physics minds in the world. So, like all great stories, the mystery of asymmetry in humans remains unexplained. Still, at least we’ve moved on a long way from Aristotle’s explanation.

## Not so plane or simple for the EasyJet jet set

by Hannah Jewkes

The aviation industry is the fastest-growing source of climate-changing emissions, and furthermore it avoids paying tax on fuel. As air travel gets cheaper and cheaper, should we impose a tax on it? Yesterday’s debate on budget airlines brought together three people with very different views to discuss whether budget airlines are bargain or beast.

Kathryn Barker of the British Aviation Authority put forward a balanced view, labelling climate change “one of the biggest environmental challenges” and accepting that the aviation industry should pay the price. She proposed that includ-

ing the industry in an EU emissions scheme would be the “smart way” to reduce climate change.

Richard Dyer, aviation campaigner from Friends of the Earth, quoted Tony Blair’s target of reducing emissions by 60% by 2050. He claimed that the predicted growth of the aviation industry would make this target impossible.

Travel operator and lecturer Peter Smith praised the growth of the aviation industry for the increased freedom and opportunities for personal development it offers. Smith’s argument, as many of the audience pointed out, seemed to neglect the consequences of that freedom.

## Fab lab-oratory

by Sara-Jane Arbury

“I was sitting on the toilet one day and I decided to write a book about the vagina,” explained Catherine Blackledge, unveiling the fruits of her labour to an attentive audience last night. *The Story of V* took four years to write; the author underestimated just how much information there was about the mysterious “pubic triangle”.

A world tour to far-flung destinations explored examples of “vaginal derring-do”, ranging from protective amulets to the practice of vaginal display as a good luck charm to ward off storms, wild animals and evil spirits. In 1958, 7000 women in West Cameroon raised their skirts collectively to protest about farming legislation – and won.

It was the similarities between the



*V’s story: from taboo to coffee table.*

penis and the vagina that were the most enlightening. The scientific view throughout history was of man being the measure of woman – the penis acting as a yardstick for women’s genitalia – and that women possessed an internal penis. Recent discoveries suggest the opposite: that men may have a clitoris. Both do very similar things when it comes down to it. Exciting and stimulating? I should say so.

## Blonde ambitions



Do gentlemen prefer more blondes?

by Adam Horovitz

Opening with a description of a *Jetsons*-style future, *How to Clone the Perfect Blonde* writers Sue Nelson and Richard Hollingham last night took us from the Pillar Room into a world where all our sordid little fantasies could begin to be made possible by current science: robotic domestics, perfect cloned partners, teleportation and the like.

Beneath all the rickety props – C3PO dressed as Nigella Lawson, a suitcase filled with cloned fruit (bananas, pineapples and seedless grapes) and a genetic virus that Hollingham had made earlier with cardboard and double-sided sticky tape (presumably for speed) – ran an undercurrent of hard science.

Teleportation already exists, we were told, but all that can currently be transported is the photonic equivalent of a person's hair colour; artificial intelligence has currently reached the level of a "very stupid beetle"; gene therapy – if there was not a possibility of death attached – could prevent obesity.

Apparently teleported particles share a bond with those left behind, meaning that "if you tickle one, the other laughs". Einstein called this "spooky action at a distance" – Hollingham and Nelson called it quantum telepathy. More superstitious readers may call it witchcraft; according to Nelson, "in a quantum world, all possibilities exist", so they may all be right, somewhere in the multiverse.

By their own admission, they stuck "more to the shallow end of making your dreams come true" – this was definitely science for the *Loaded* generation – but it was all done with such wit and élan that one could easily forgive them.

# End of the line for X-Men?

by Jon Andriessen

Humankind has always held a deep fascination with otherness. From the Greek myths to the Victorian freak show, those poor blighted "mutants" have held the centre stage. Unfortunately, as Armand Leroi confirmed yesterday, they are not as rare as they may seem: in fact, "we are all mutants". Say it loud and say it proud, "mutants!".

Not that I want to worry you – it doesn't mean your children will start to grow an extra head or possess *X-Men*-esque abilities – it's simply the way our genes have evolved. Over 10 000 genetic disorders have so far been discovered, most completely harmless (just small differences in hair or eye colour); others can have an astonishing effect. We were shown pictures of pseudohermaphrodites, cyclopic infants and a child with a mermaid tail, headless mice, a double-beaked bird and a two-faced pig called "Ditto". It was sometimes hard to know where the science stopped and the sideshow started.



New genes for old: Leroi delves into the changing faces of mutation.

Leroi, a man comfortable with reminding you of his new Channel 4 series – it's called *Mutants* by the way – is convinced that our future depends upon unravelling the secret code of our 30 000 genes and eradicating all mutations.

It was clear that many of the audience held more sceptical views than

the self-appointed gene-mappers and some asked about "positive mutation" and "evolution". Off the script, Leroi's answers resembled those of a badly briefed politician.

For him, "mutation is evil" and this is war, so forget *vive la difference* and start preparing for *The Midwich Cuckoos*.



**FACING THE FUTURE:** John Cleverley, a festival runner, is placed inside a mock-up of an fMRI scanner that allows scientists to probe increasingly deeply into the mysteries of the mind. The exhibit has been brought to Cheltenham by Bristol Neuroscientists and simulates the whirrings and clangings of the huge machines that allow us to see the brain functioning in real time! IP

## THE DROID

*How to Clone the Perfect Blonde* author Richard Hollingham on penguins: "They're socially monogamous but sexually promiscuous; sort of like the David Beckham of the avian world."

On discovering that his microphone had failed, Francis When quipped: "You have to expect this sort of thing at a science festival."

Following yesterday's revelations, men, it seems, have been similarly targeted by postorial toilet graffiti. Forget Euro 2004 and clone the perfect blonde, chaps – and they don't mean David Beckham...