

The x-change, Thursday 10th September 2009

Speakers:

Lord Robert Winston, Imperial College, London

Lorelly Wilson, University of Manchester

Dr Craig Underwood, University of Surrey

Phil Nathan, University of Surrey

Bill Bryson, Author and Broadcaster

Professor Jim Al-Khalili, University of Surrey

Host: Sue Nelson



The first speaker was Lord Winston from Imperial College. He talked about the current problem of the accessibility to consideration of fertility treatment. He was questioned about whether working in the field of fertility was emotional. He talked about public engagement of science, and the two obligations of society; scientists should explain their work, and the public should want to understand science. He used the example of how society would consider someone who didn't know who wrote Hamlet as ignorant. During a vital part of this discussion the fire alarm rang intermittently causing the audience to repeatedly rise to their feet and attempt to leave the venue as Lord Winston looked on in amusement. Fertility expert and keen saxophonist, Lord Winston is also Chancellor of the Royal College of music and he talked about his love of music and his pride in the very impressive achievements of the students there.

A question was posed by an audience member about educating people about the conservation of momentum to avoid car crashes. Robert Winston disagreed, as he explained you don't need to understand science to drive a car. Although amused, he had a serious point to make about understanding science: "If we don't understand science, our grandchildren might live in a world 4 degrees warmer. We need to understand the uncertainty."

Next, chemist Lorelly Wilson from the University of Manchester demonstrated some simple (yet magical) experiments that can be done at home with the aim to encourage children into science involving vanishing plastics, a fork on some string and an inflating elbow-length rubber glove...

Dr Craig Underwood from the Surrey Space Centre was the third speaker. He talked about how he was involved in making access to space cheaper and faster by using smaller and lighter satellites. He recalled his experience with the first UK satellite, UoSAT-OSCAR9, and the voice synthesiser chip on the satellite which spoke the time to anyone pointing a hand-held radio in the right place, complete with a stunning robot voice imitation. He discussed the UK mission Moonlite, which is a small satellite and probes that will study the moon. There are still questions which exist from the Apollo era and Moonlite will attempt to answer some of these questions.

Phil Nathan is a criminology student at the University of Surrey. He has been

performing experiments to get young people excited by science and formulating their own theories and conclusions as they enjoy a visual spectacle. For his demonstration he borrowed a willing victim from the audience and wielding a pair of tweezers, he plucked hair from the head, chest, foot and nose to see which was the most painful and correspondingly which area of the body had the highest concentration of pain receptors.

Bill Bryson talked about his experience of the first Festival event he had done earlier that week; an interview with BBC Radio 4's Material World presenter Quentin Cooper. He talked about his move from travel writing to science and surprising observations about the scientific world he had experienced while writing his book. He was asked about whether he would do another science book and responded by saying he would like to do a book about the human body as his son has just qualified as a doctor. He spoke of his ongoing sense of wonder at the world of science and commented on the need to have exciting science education for all children, so they retain their natural curiosity about the world and interest in science for life.

Professor Jim Al-Khalili from the University of Surrey was the final guest. He responded to the question whether knowing how things work removes the magic and recalled when Richard Feynman was asked this question: knowledge adds to the beauty.

In answering a question raised by the audience, whether the label scientists is bland considering sportsmen are always referred by their sport, he admitted the audience member might have a point. He talked about public engagement and commented that the public are clever and would like to talk to scientists without the jargon.

He ended with a rant about how Sue Nelson's equation for the perfect science communicator that features on her BBC blog on the British Science Festival was blatant discrimination against him. Having neither a large amount of facial hair nor a large quiff, he demanded the equation be changed to include the amount of chest hair where he promptly showed he had a clear advantage over the competition.

| You can find Sue's *revised* equation on her -BBC 'Gossip Girl' blog at <http://news.bbc.co.uk/1/hi/sci/tech/8240096.stm> .