

EXHIBITION

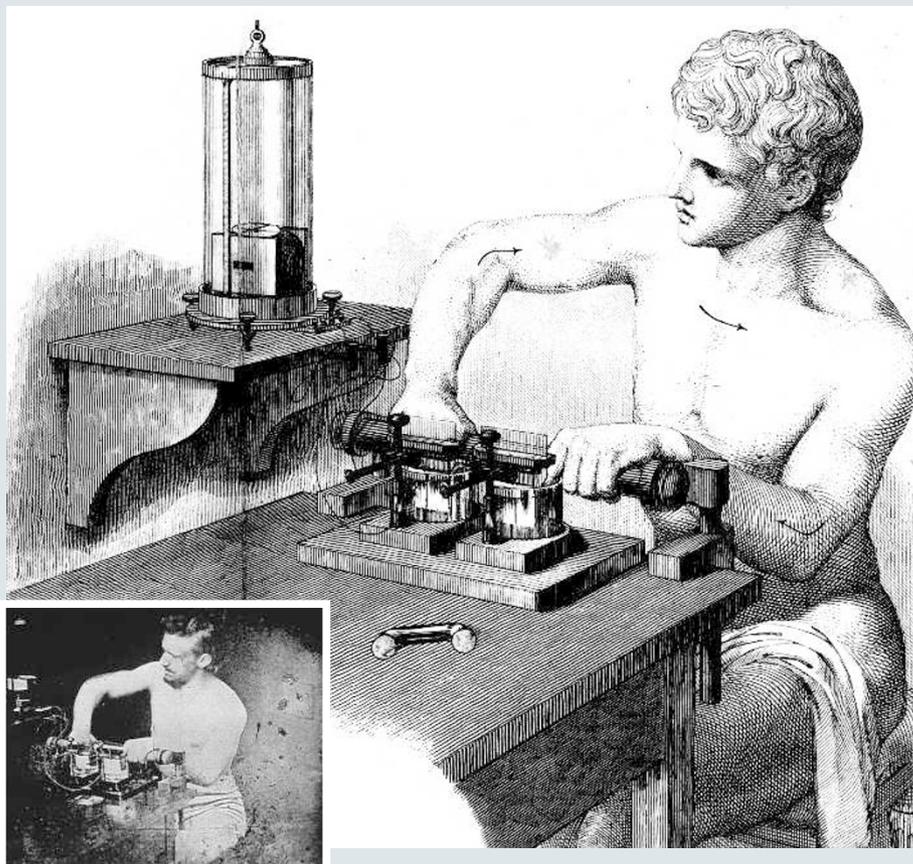
Apollo in the lab

Why is Apollo at the bench? This textbook engraving was designed by the nineteenth-century natural scientist Emil Du Bois-Reymond, a founder of electrophysiology. It was based on a photograph he took of his brother (inset).

Du Bois-Reymond was well schooled in the classics and was a member of a new school of scientists, which held that biological tissues were subject to the laws of physics. He also believed that experimentation has its own aesthetics.

He worked closely with instrument-makers, for example in developing his *Multiplikator*, a precision galvanometer that could detect the small transient currents in human muscles when flexed. He believed that the researcher must, through athletic training, become an experimenting Apollo, a part of his instrument. He himself worked out in a makeshift gym in his home where he originally had his laboratory. He became the director of the Physiological Institute in Berlin, but he was unhappy at having less day-to-day control of the experimental work carried out there.

An exhibition of the life and work of Du Bois-Reymond can be seen at the Berlin Museum of Medical History at the Charité Hospital until 2 October. A.A.



BERLIN MUSEUM OF MEDICAL HISTORY

of utilitarianism, although neither provides much in the way of an argument for this. Nettle's position is more sophisticated, as he allows room for a range of other human goods alongside happiness, such as "purpose, community, solidarity, truth, justice, and beauty", which cannot simply be converted into some imaginary universal currency called utility.

Layard is the best guide to the complex relationship between happiness and money, although this is also well analysed by Martin and Nettle. Drawing on recent work by economists such as Robert Frank, Layard presents an array of graphs and tables showing that rising affluence in the developed world has not increased average levels of happiness. Indeed, there is some evidence that people in the developed world have actually become less happy as they have got richer, at least in some respects. All three books explore the reasons for this apparent paradox, but only Nettle provides something approaching a deep explanation. He proposes that natural selection has endowed us with an implicit theory about what makes us happy that is false by design. In other words, unhappiness is not always a sign that our psychological mechanisms have gone wrong. On the contrary, "the wanting system is supposed to enslave you, to make you maximise your reproductive success". Our tendency to be mistaken in our beliefs about what will make us happy is, Nettle explains, "a particularly cruel trick played by

our evolved mind to keep us competing".

Martin is at his best when discussing how the education system so often fails to equip children to lead happy lives, and how it might be changed to remedy this deficit. He makes a powerful case for happiness to feature prominently on the educational agenda, and this is a welcome antidote to the narrow view of education as a preparation for the workplace that is becoming prevalent in many Western countries. His book should be required reading for anyone working in education policy.

None of these three authors can resist the temptation to offer practical tips on how to be happy. But it is a great relief that they all avoid the more messianic tones that have blighted some of the offerings of the 'positive psychology' movement launched by the psychologist-turned-guru Martin Seligman.

If I had to recommend just one of these books, it would be Nettle's, because it conveys about the same amount of information as the other two books in about half the number of words. Yet the conciseness is achieved with a lightness of touch that makes it a delight to read. And Nettle is more aware than Layard and Martin of the paradoxes inherent in the pursuit of happiness — paradoxes that so often make happiness such an elusive goal. ■
Dylan Evans is a senior lecturer in intelligent autonomous systems at the University of the West of England, Frenchay Campus, Coldharbour Lane, Bristol BS16 1QY, UK.

NEW IN PAPERBACK

Mutants: On Genetic Variety and the Human Body

by Armand Marie Leroi (Penguin, \$16)

"Mutants is an exquisitely life-enhancing book. It captures what we know of the development of what makes us human, and it recognizes the random tragedy inflicted by nature and nurture." Peter Little *Nature* **427**, 101-102 (2004).

A Brief History of the Human Race

by Michael Cook (Granta, £9.99)

"An elegant, quick and engaging way to review what has happened in history, to learn much that is new, and to appreciate the past of the whole world, not just the West. It meets scientists almost halfway, trying to ground the events of history literally in the material facts of the planet." Melvin Konner *Nature* **428**, 123-124 (2004).

Sight Unseen

by Melvyn Goodale and David Milner (Oxford University Press, £14.99)

"Goodale and Milner emphasize that much of what goes on in our brains, and even in our cortices, escapes our conscious 'I', partly because of the separation of the visual systems for perception and action... this volume is a perfect present for anyone even remotely interested in the brain." Manfred Fahle *Nature* **429**, 703 (2004).