book reviews

The science of morality: collected papers

Edited by Graham Walker. Royal College of Physicians, London 2007. 130 pp. £15.00.

The title of this extraordinarily diverse and thought-provoking collection of essays does not do it justice. The beautifully written and carefully argued papers assembled in *The science of morality* take the reader far beyond the naive scientism it leads one to expect. While the focus is on what we can learn from genetics, neuroscience and evolutionary psychology about the basis of our sense of ethical obligation, its approach is not confined to the kind of hard-line genetic or neurological determinism that seems to be in the ascendant in both academe and popular culture at present.

AC Grayling's foreword is a good indication of what is to come. His initial claim that, 'the genetically determined architecture of the central nervous system is the habitation of a great deal of our moral capacities and responses' and that how we interact and respond to one another 'has roots that appear to run deep into the biological past of our species' worried me. But when I read on, I learned that much of our behaviour is the result of 'conscious choices, much education, and cultural direction and correction', with a huge input from individual and collective intelligence, and I was reassured. On the one hand, we are organisms who are marked by our biological origins; on the other hand we are conscious agents who know what we are doing and quite rightly take moral responsibility for it. We have biological roots and cultural and individual leaves.

Our morality requires, of course, that we should be able to function biologically. As Adam Zeman points out, moral responsibility depends upon our being conscious and this in turn depends in some as yet unclear way upon the functioning of our brains: even if the brain is not in a sufficient condition of consciousness, it is certainly a necessary condition. It is even less clear, however, what the neural basis of conscience is. At the very least, it requires a lot of different kinds of awareness – for example the ability to acknowledge that you have voluntarily performed an act and, second, the ability to judge that it was wrong. Beyond that, we know little.

Even so, there is a tendency to 'neuralise' moral sensibilities and to assume that the brain – its structure, organisation and function – somehow explains our ability to judge actions as wrong and (usually) to wish to do what is right. Robin Dunbar, who emphasises the complexity of moral judgements and argues that only humans are capable of making them, believes that this is because we alone have sufficient neocortical capacity with the unique computing power to underpin the necessary social cognitive abilities. But the invocation of the neocortex (and, in particular, the executive functions of the frontal lobe) to explain the difference between moral man and amoral chimpanzees comes close to currently very popular phrenology that Walker seems to endorse when he asserts that the social brain, where morality is supposed to dwell, is located 'essentially' in 'the orbito-frontal cortex'.

The emphasis on the stand-alone brain as the basis of everything that we are – sentient creatures, conscious agents, dutiful citizens – is regrettable. While it is true that our behaviour, or the constraints within which we operate, can be more fully understood in purely cerebral terms the more gravely our brains are damaged, a purely brain-based account of ordinary behaviour does not allow for the difference between involuntary and truly voluntary actions. Neural accounts of humanity cannot capture the very real and undeniable difference between, say, having an epileptic fit, deciding to see the doctor to find out what it is, and so organising one's life as to be able to keep the appointment at the hospital.

The key metaphor for the neuralisers is that of 'wiring'. Even those who emphasise the role of culture, nurture, and learning, in the acquisition of moral sensibility, still speak of wiring – albeit soft rather than hard. Soft wiring is cultural, learned and hard-wiring genetic, implanted by evolution. (Very early learning, we are to understand, may result in fairly hard-wiring that is resistant to change.) The hard-wirers tend to emphasise the role of evolution in determining morality. Ian Craig and Caroline Loat argue that 'morality is an evolutionary mechanism with survival implications'. Evolution implants morality through shaping brain development.

Even altruism, which looks pretty ill-advised from the point of individual survival, can be understood in Darwinian terms. The trick is to invoke group selection (which maximises the chances of the genome surviving) and to throw in a bit of game theory. By this means, the utterly amoral genetic material, which has only its own survival to consider, can programme the phenotypes to behave in such a way as to optimise its own chances of replicating. This is not actively immoral, of course. The gene is not 'selfish'; it has merely been shaped by natural selection to be a survivor, that is to say a successful replicator. Thus the amoral roots of the supreme self-sacrifice of laying down one's life for one's friend.

Walker aims not only to explain morality through bioscience but to find in science an 'evidential basis of a non-denominational, consistent morality founded on universal values'. This is an admirably humanistic aim but it seems to be undermined, rather than supported, by the way several of his authors look to the universality of fundamental moral principles and values as evidence for their biological and/or genetic origin. Indeed, I sensed a circular argument: bioscience is invoked to give a firm foundation to non-relativistic morality while at the same time the universality of the morality is cited as evidence of the applicability of bioscience to human behaviour.

It is interesting, indeed revealing, that several of the papers make little reference to genes, neurones or evolution. Camila Batmanghelidjh, who set up the drop-in centre Kids Company, gives a deeply moving account of working with children who have little or no conventional moral sense as a result of being appallingly deprived of care and compassion. Her message – that those to whom evil has been done will do evil in return and that they must not be demonised but given the kind of support that they have been denied – does not depend on the central hypothesis of the book. William Hatcher has much that is inspiring to say about the universality of human values, notably love, without even a sideways glance at a gene or a neurone.

The assumption that morality is rooted in the functioning of the stand-alone brain, itself shaped by genes that are concerned only to ensure their own survival, raises difficult questions about how we should judge psychopaths and others whose behaviour causes suffering. Many of these questions arise precisely because of a determinism that is fostered by genetic and/or neural and/or evolutionary accounts or morality. Michael Penn and his co-authors develop a twin track approach to understanding individuals who have ethical disability: they invoke an aetiology that combines dysfunction in neurobiological processes necessary for an adequate perception of the mechanism of reward and punishment and experiences with injustice. While they relate anti-social behaviour to neurally based insensitivity to the normal facilitatory and inhibitory stimuli of traditional upbringing, in the case of individuals brought up in many inner-city and poor rural communities, they also suggest that 'the loss of hope has resulted in the eclipse of fear' – the fear of disgrace, punishment or pain that would normally give pause to someone about to commit a felony. This sounds both plausible and is a long way from neuralisation, genetic determinism or the 'Darwinitis' that I had anticipated from the title of this book.

The history of attempts to naturalise morality has not been a happy one for the fundamental reason that morality is normative and natural processes are not. Nature is about what happens and not about what ought to happen or ought to be made to happen. Evolutionary theory, as we have noted, may be able to explain patterns of behaviour that are altruistic and why (as Sean Spence argues) truth telling is the default state of the human mind, but it does not really cross the boundary between the 'is' of nature and the 'ought' that lies at the heart of human life. An adaptive pattern of behaviour is not the same as conformity to a moral principle. Principles are explicit. They are acknowledged, assented to, embraced. We deliberately respect or flout them.

Human beings are the only items in nature that appeal to the better nature of others. (And it is interesting in this respect that no other creature teaches its young, except incidentally by example.) Morality is articulated, inculcated, argued over, contested, defended and so on. Its principles have been forged at a great distance from nature, within the spaces that are made available by power relationships, by institutions, by the law and by world-pictures, religious and secular. The laws of the land, unlike the biological and physical laws that operate in the soil, are formulated in the collective and individual self-consciousness of human beings. The self-consciousness of human beings, what is more, has a temporal depth for which there is no evidence in other animals. We feel bound by our past promises (it was not for nothing that Nietzsche described, man as 'the promising animal') and we draw on our remembered past and imagined future to give the sense of identity and of the meaning of our lives which both underpin and are reinforced by behaviour we regard as moral. Our explicit obligations make sense of our lives and our lives make sense of our obligations.

The science of morality is beautifully written and commendably succinct. Walker is either a brilliant editor or very lucky in his contributors or, as I suspect, both. I argued with this book from beginning to end. More significantly, it has left me arguing with myself about whether the increasingly sophisticated biosciences of the human body bring us any closer to a science of human morality and whether we can close the gap between physical laws and ethical principles.

RAYMOND TALLIS
Emeritus Professor of Geriatric Medicine
University of Manchester

Prof: The life of Sheila Sherlock 'The liver queen'

By Om P Sharma. Royal College of Physicians, London 2007. 228 pp. £20.00.

To a generation of physicians Sheila Sherlock was an icon – the pioneer of liver disease as a clinical discipline, a polymath in its intricacies, and a formidable presence at any national or international hepatology meeting. Few, particularly at the sharp end of one of her comments at such a meeting, would have paused to wonder how and why she developed to such a towering figure.

Om Sharma, a family friend and professor of medicine at the University of Southern California, tackles this question in a wide-ranging, discursive and pretty idiosyncratic fashion. He weaves the various strands of personal and professional life into a backdrop of social history. We actually go back to Becket blood (St Thomas à Becket that is) as a forebear – naturally on the female side. And it is from the female side that – to the amateur psychologist – the fascinating background to Sherlock's personality and drive begins to emerge. Central to that is the story of her own mother's drive, both before and after marriage, coupled with the account of Sheila's father, a would-be cavalry officer drafted to Ireland in 1916 at the time of the Easter Rising, and subsequently an absent and unforgiven parent. Genes from the female side and the environmental struggles in a one-parent-family must have made a potent contribution.

And then there was the state of medical education in the late 1930s. English medical schools turned down her applications, leaving Sherlock to become Edinburgh's top graduate; but apparently the Scottish system could not stomach the prospect of offering academic training to a woman. The story of her rescue by some of her mentors, and by the Hammersmith Hospital, her pioneering investigations into liver disease, and her investigative zeal are well covered, as are the ethical controversy that her invasive tests and research-driven biopsies raised.

Sharma researched this book in a very personal way, with extensive interviews with friends and colleagues. Sheila's career achievements and honours are obviously well documented, but Sharma's approach also warmly documents her friendships with other clinical researchers, her devotion to her trainees, and the curious combination of private warmth with a formidable external persona probably developed as a carapace for shyness. There is of course also the story of her family life – as well as the love story – essentially in her husband's words. There is probably scope for a book on consorts, and Gerry James, together with Prince Albert, Denis Thatcher, and in the future possibly Bill Clinton – would fit into it aptly.

Could anyone develop such a career now? It's an interesting question at a time of work-life balance, performance indicators, and, in UK universities, some fairly rigid criteria for success. Sharma's book demonstrates that Sheila's opportunity arose against