

problems generated by the use of research methods that raise serious moral questions. Callahan also goes through the stages of how the integrity of science was protected from the increasing demands of the research imperative. Misconduct, falsification of data and conflicts of interests are all discussed against the background of institutional imperatives, such as research being universal. In a pluralistic society where religious, philosophical and ideological differences prevail, consensus on controversial issues is difficult to achieve. One such issue has recently attracted a great deal of debate: research, for reproductive and therapeutic purposes, on embryonic stem cells and its relationship to human cloning.

Most scientists naturally resent what they perceive as arbitrary limits set on their right to conduct scientific research. They contend that laypersons are ill-equipped to discuss issues connected with such research, let alone share control in what they do. What needs to be stressed, however, is that human life is too precious a commodity and too valuable an asset to be left solely in the hands of scientists. Society has a right, equal to that of scientists, to participate in discussions over such issues as in-vitro fertilisation, experimentation on human embryos, cloning and other procedures that impinge heavily on the dignity of the human being.

Callahan discusses a wide range of subjects. He refers to some interesting questions being asked by researchers today. The metaphor 'war of medicine against death and ageing' is used to test the validity of traditionally important research goals. Yet how important is research when it involves cutting moral corners, as could happen in stem cell research? Discussing whether there is a research obligation in the fight against ageing, Callahan asks some pertinent questions. Where does ageing stand as an object of scientific research? Is ageing a disease like other physical pathologies, or is it like death, a 'natural' biological inevitability? If it is natural, should it merit research? Indeed, ageing is not a disease but diseases occur in the elderly. There is no doubt that with the demographic changes taking place throughout the world, there is an imperative need for research on ageing in order to foster active and healthy ageing.

On the whole, one agrees with most of Callahan's conclusions except on the particular issue of the early human embryo – an issue which is assuming central importance in bioethics. Whilst acknowledging that respect is due to the early human embryo, Callahan does not accord it the full status of personhood from the beginning of its existence, holding that it acquires this status as it develops and seeing nothing amiss in permitting its use in research which is not intended for its own benefit. On the other hand, there are others who claim, and I agree with them, that all biological evidence confirms the humanity of the human embryo.

With this sole reservation, I consider Callahan's book a valuable addition to bioethics literature. It provides a source of information on many contemporary bioethical issues which the reader will find most useful. Callahan notes that, though moral constraints can be a victim of research, moral corners need not be cut. It has been said, rightly, that not everything that is technologically feasible is necessarily also ethically acceptable. Before establishing what is technically possible and also safe, one should pause awhile to consider whether one should be doing it in the first place.¹

Reference

- 1 German LJ, 'Fundamental ethical issues in assisted procreation'. In: Cauchi MN (ed). *Symposium proceedings in patients' rights, reproductive technology and transplantation* Malta: The Bioethics Consultative Committee, 2000.

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The hand: a philosophical inquiry into human being

By Raymond Tallis. Edinburgh University Press, Edinburgh 2003. 364pp. £19.99.

The author hides his intellectual life by masquerading as a consultant geriatrician in Manchester, and Chairman of the College's Ethical Issues in Medicine Committee. In the latter capacity he has already shown a splendidly clear and commonsense appreciation of the NHS and an understanding of its problems.

So imagine my surprise when I read this astonishing book, which is the first part of a trilogy in which Professor Tallis intends to describe and assess all the reasons for the enormous gulf between human beings, with all their achievements, and other animals. He fully justifies his choice of the hand as his starting point. In this book he covers every relevant aspect of anatomy, physiology, psychology and sociology. For example, he notes that man's ability to oppose the thumb has liberated him from the discipline of the other hand joints, and increased by an order of magnitude the effectiveness of the hand in servicing the body. The human hand enables man to make and use tools of all kinds and to communicate with other people. Tallis makes a good case that the functions of the human hand are unique amongst mammals. He might have used the historical development of clavier playing, only a few centuries ago, to illustrate the liberation of the thumb. He might also have commiserated with those of us who have suffered the banal but extremely common osteoarthritis of the proximal thumb joints.

Later he is led into a great number of philosophical avenues, including discussions of human speech and writing. *The hand* is a work of commanding erudition. Most of the book comprises detailed and (as far as I can tell) accurate descriptions. My only criticism is that the detail becomes at times a bit oppressive. However, this is relieved by some charmingly naive asides – when, for example, he reveals that by giving an inadequate answer about the nature of itching in his Final Physiology Examination at Oxford he missed getting the 'expected' First. Elsewhere he says that a 'brief digression into electromagnetism is called for', and reminds the reader that Faraday's discovery was 'one of the greatest events in the story of mankind's ever-increasing ability to understand and control nature'. And then he considers the violin and points out that 'the bowing and fingering must work in concert if the instrument is to bring off its daily miracle of stroking silence until it weeps a world'. One can stand only so much fine writing.

The text is clear, but for my taste he is overfond of commas and dashes. These sometimes make the book sound like an off-the-cuff lecture. For example:

The hand's communication with itself as well as with the objects that it manipulates enhances the sense of the hand as an instrument: the thousand grips with their customised solutions to problems – for

example, walking along holding a book and a cup in a single hand – mixing precision and power grips, requisitioning spare fingers, etc. makes of the hand an implement, a thing of use at a distance from the body I am, and so the master-tool, the father of the possibility of tools.

One sees what he is getting at, but this sort of thing is tedious to read. However, Professor Tallis is an enormously intelligent and cultured man who has written an extraordinarily thoughtful and interesting book.

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