reviews

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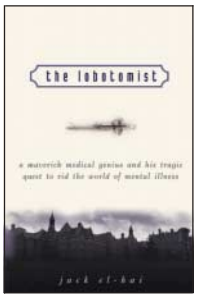
The Lobotomist: A Maverick Medical Genius and his Tragic Quest to Rid the World of Mental Illness

Jack El-Hai



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pp 368
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Rating: ★★★★

Aside from the Nazi doctor Josef Mengele, the US neurosurgeon Walter Freeman ranks as the most scorned physician of the 20th century. The operation Freeman refined and promoted, the lobotomy, still maintains a uniquely infamous position in the public mind nearly 70 years after its introduction and a quarter of a century after its disappearance.

At the Santa Marta Hospital in Lisbon on 12 November 1935 Egas Moniz and Almeida Lima began the first neurosurgical attempts to attack the frontal lobes as a psychiatric treatment. They published impressive results of their initial series of 20 leucotomies within just four months of the first operation: they claimed improvements in two thirds of the patients and complete cure in a third. This rush to publication ensured no proper follow-up beyond the first few weeks of surgery. Of course, if you read the fine print of the neurosurgeons' claims you will see that Moniz maintained that although the operation did not in fact eliminate his patients' delusions and hallucinations, it did diminish their emotional responses to psychotic symptoms.

But back in 1936, when Freeman performed his first leucotomy, the only alternative treatment for severe mental illness was prolonged institutionalisation, and the procedure did seem to liberate many patients from this fate. How else to explain why, in the United States alone, more than 40 000 such procedures would be carried out over the next few decades, and why it remained in use well into the 1970s?

Yet the popular media view of psychosurgery, reinforced by its portrayal in Ken Kesey's film *One Flew Over the Cuckoo's Nest* and *Frances*, the 1982 biopic about the life of the rebellious movie and stage actress Frances Farmer, is that doctors chose particular patients to operate on precisely because they wanted to crush their spirit. A disturbing scene in *Frances* shows a balding and goateed psychiatrist, who closely resembled Walter Freeman, performing an "ice pick" lobotomy at Western State Hospital on the supine heroine. The film turned Frances Farmer into a well known symbol of the excesses of the procedure—a patient supposedly selected for her nonconformist political opinions and who was operated on only with the consent of her vindictive mother, who colluded with doctors in using the procedure to vanquish her soul and spirit.

But as Jack El-Hai points out in this meticulously researched account, it's extremely unlikely that *Frances* was an accurate portrayal of the psychiatric treatment Farmer actually received. The author can find no reliable record in the hospital's accounts of its operations that anyone fitting Farmer's description ever received the procedure. Also, given Farmer's personal accomplishments after her release from the institution—marrying, regularly hosting a TV programme in Indianapolis, and appearing on *This is Your Life*—combined with Freeman's compulsive pursuit of his patients to accumulate evidence of the benefits of his controversial procedure, it seems odd that the neurosurgeon would neglect to record or mention what would have been his most celebrated success story.

Freeman himself was assiduous in his own follow-up of his patients, crisscrossing the United States long into his retirement, driving alone and living in a camper van, obsessively pursuing the evidence in his former patients' subsequent lives that the procedure was worth performing.

For example, two years after no contact from one ex-serviceman on whom Freeman had operated in 1946, the man suddenly appeared in Freeman's office bearing a long narrow box, which he handed to the physician. "Take this, Doc," he told Freeman, "I've decided not to kill myself." After he left Freeman opened the box and found a rifle and a supply of ammunition. Oddly enough, in the light of modern psychiatric practice, Freeman, as with all his other patients, pursued this one over many years to keep track of how the patient was doing, but Freeman also kept trying to return the gun to him. The patient refused to have it back.

Although he was an enthusiast for his procedure, Freeman could be quite circumspect. For example, he always declined to operate on people in prison, despite pressure from attorneys keen to claim that the procedure had removed their clients' "criminal tendencies," so rendering them ready for release. A habitual burglar, Millard Wright, with no history of violence underwent the procedure in 1947 as part of his lawyer's plan to secure his release from prison, but tragically the judge with whom this initial agreement had been hatched died before Wright could return to court to be re-evaluated. Despite the fact that the press now reported him to be a "new man … cheerful, sociable, relaxed," the new judge refused to cooperate with the lawyer's plan and, despite Wright having had the lobotomy, sentenced him to between two and 10 years of prison. Wright used his eyeglasses to slash an arm and then hanged himself while in custody.

KOBAL COLLECTION

Frances Farmer: a symbol of the excesses of lobotomy

This incident was followed in 1950 by the slaying of a Yale University psychiatrist, Lewis Thorne, by a former patient who had received a lobotomy several years earlier.

The violence and suicide associated with extremely disturbed states of mind claim victims on both sides of the therapeutic fence, doctors as well as patients. This extremely sympathetic account of Walter Freeman reminds us that doctors have, at the very least, courage in such attempts to engage with difficult and dangerous conditions—which the popular media, in their rush to condemn, fail to appreciate.

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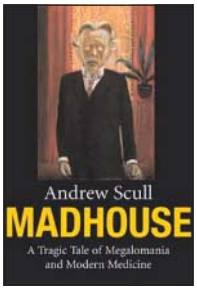
Items reviewed are rated on a 4 star scale (4=excellent)

Madhouse: A Tragic Tale of Megalomania and Modern Medicine

Andrew Scull



Yale University Press, £18.95, pp 352
ISBN 0 300 10729 3

Rating: ★★★★

Surgery may not be the most obvious treatment for mental illness. Surgeons are people who find it extremely rewarding to act and see the impact of their actions on their patients. However, operating on the body may not have very specific effects on a disordered mind. This fact has not hindered enthusiasts intervening surgically believing their outcomes to be positive. Such excesses have been tragic, as is well known in the history of lobotomy (see review of *The Lobotomist* in this week's *BMJ*).

Less well known is the phase of surgery on other parts of the body that preceded that on the brain itself. *Madhouse* is a biographical history of Henry Cotton (1876-1933), an eminent and notorious American psychiatrist, who believed that the cause of mental illness was the systemic effects of largely hidden chronic infections. Septic foci, therefore, must be searched for and eradicated. Particular attention was paid to the teeth and tonsils. Even if many people were sceptical about the causal connection, Cotton argued that detoxification was none the less beneficial, and that patients were relieved when they found that their mental condition was the result of poisoning by infection. Cotton's theory of focal infection may have met its demise because of the drastic, and not infrequently fatal, operation of colectomy.

This well written book emphasises the extent to which it is misleading to view Cotton as essentially a maverick. He received considerable support from the psychiatric profession. For example, he benefited from the interest and admiration of Adolf Meyer, regarded as the dean of American psychiatry in the first half of the 20th century. Meyer wrote Cotton's obituary, concluding that he had "an extraordinary record of achievement." Meyer suppressed a report of the poor outcome of Cotton's work in the forlorn hope that he could persuade Cotton to accept the reality of his results.

The entanglement of Meyer in this tale is significant as his psychobiological approach at least theoretically stands in contrast to Cotton's insistence that we have to recognise the physical nature of functional mental disturbance. For instance, Meyer regarded Cotton's claims as somewhat extreme, suggesting they went "beyond what I personally believe to be my experience." None the less, Meyer's justification for experimenting with the aggressive treatment was the results, complaining that there were not the resources to evaluate the procedures extensively.

We may think we are protected from the dangers and blindness of wish-fulfilling expectations in the era of the randomised controlled trial. However, simplistic and biologically reductionist accounts of mental disorder, which underpinned the work of Cotton, still sustain modern pharmacotherapy. For example, it is commonly said that psychotropic medication corrects chemical imbalances in the brain. This theory is as much without proof and requires as much faith and self deception as that of Cotton. Perhaps we can learn from our sense of outrage about the events described in this book. I think the lesson is that a psychosocial understanding of mental illness, if it is to be influential, needs also to have a strong ethical foundation.

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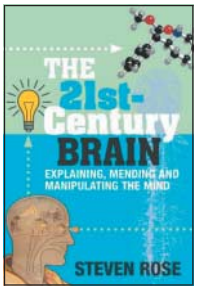
The 21st Century Brain: Explaining, Mending and Manipulating the Mind

Steven Rose



Jonathan Cape, £20, pp 356
ISBN 0 224 06254 9
www.randomhouse.co.uk

Rating: ★★★☆

Perhaps "zeitgeist" is the word for it; "the spirit of the age" is how my dictionary translates it; and Steven Rose dissects and unfolds it, as possibly no other writer in his field can, in this awesome account of the most complex structure in the known universe. What is *it*? It is that sense that many of us have, at whatever level of understanding, that our cumulated edifice of scientific knowledge will soon empower humanity with the simultaneously thrilling, yet terrifying, ability—to fully explain, mend, and manipulate the mind.

This book's range is awesome because, in just 300 pages, Jones covers the fields of human neurogenetics, neuroembryology, comparative neuroanatomy, neurodevelopment, neurophysiology, neurodegeneration, neuropharmacology, psychiatry, and more. He builds his varied arguments like the proverbial brick wall, with solid foundations of neuroscience written with verve and authority and then, in a final sweep—weeding out any possibility of complacency—he explores the implications of this knowledge as "a citizen, in discussing how we should try to respond."

Within these foundations, I discovered myriad new facts that I can now bore my students with—that most brain myelination occurs in the first two years of life (I was taught eight) or that all the familiar neurotransmitters may work as neuro-wet nurses long before they transmit anything. As the book developed, I took vicarious delight in Jones' merciless debunking of fashionable scientific perspectives. He hasn't got a positive thing to say about any of them—behavioural genetics, evolutionary psychology, Chomskyan linguistics, biological reductionism, consciousness theories—they all wither and die under Rose's scrutiny.

But it is when Rose turns his guns on psychiatry, and on issues pertaining to child psychiatry in particular, that the book really takes hold. He is scathing about the current direction of psychopharmacology and has little better to say about those of us who prescribe the drugs. His argument goes thus: we in psychiatry, from Kraeplin and Bleuler onwards, have committed the fundamental mistake of oversimplification. Just because altering synaptic dopamine levels reduces psychotic symptoms doesn't mean you've found the cause. He evokes R D Laing's freshly medicated, psychotic patient, complaining bitterly to his voices, "Speak up y'buggers, I cannae hear ye." He gives even less credence to the notion of attention deficit hyperactivity disorder, which, in Rose's opinion, is a pharmacological response (namely the universal phenomenon of improved concentration on exposure to methylphenidate (Ritalin)) crudely searching for a disorder.

And this is Rose's overall message—that human brains are anything but crude. They are mercurial, dynamic . . . fundamentally mysterious. Despite all attempts to understand brain function, there is still (as the cliché goes) so much that even scientists like Rose can't begin to understand. And perhaps this, ultimately, is why I closed this book feeling that something hadn't quite been achieved, despite the best efforts of Rose's 21st century mind.

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PERSONAL VIEW

Time to act against medical collusion in punitive amputations

Punitive surgical amputations are a negation of the basic principles and ethics of surgery taught in medical schools. Media reports show a frightening picture. For example, in Iraq a physician who worked in a Baghdad hospital in 1994 estimated that 1700 amputations had been performed on army deserters between August and mid-September 1994 (*Daily Telegraph* 1994 Nov 1: 21). This physician reported that procedures were often done without anaesthesia and that the risk of infection was high because of poor hygiene. Another physician in Iraq participated in an ear amputation while the patient was tied to a bed. In northern Nigeria the amputation of the hand of a cow thief, Buba Jangebe, as sharia punishment for cow theft was carried out within the purview of physicians (http://news.bbc.co.uk/2/hi/africa/2587039.stm). On 28 February 1998 four doctors in Kabul performed amputations on two men before a stadium crowd of 30 000 in keeping with an earlier sharia judgment. Worse still, some victims committed suicide after suffering amputations.

> Doctors must rise above religious and political influences

The participation of doctors in any form of non-medical amputation, especially when required by religious convictions, is a negation of medical ethics. The global medical community can no longer afford to deny the ethical implications of such practices. Therefore, regulatory bodies such as the World Medical Association as well as the United Nations need to take a categorical stand and intervene globally by investigating and effectively curtailing this problem.

The need for urgent intervention is more critical now that an ardent Shiite loyalist and doctor, Ibrahim al Jaafari, has been nominated as the Iraqi prime minister. Will the Shiite dominated legislature in Iraq interpret sharia as Afghanistan has done or turn Iraq into the religious and ideological twin of neighbouring Iran?

Many doctors have dual loyalties: they face the dilemma of choosing between their employers' directives and their profession's ethical code. To healthcare consumers the relative silence of local and international medical associations at present with respect to doctors' enforcement of sharia punishment in places such as Iraq, Afghanistan, and northern Nigeria is worrisome. It may imply doctors' helplessness in the face of enforcement of state or "religious order" as justification for non-medical amputations. Where then is the distinction between professional ethics and religious practice? This distinction needs to be clarified, coupled with new ideas to help doctors and other healthcare workers draw the line.

Doctors who perform such procedures also violate the human rights of the victims concerned. A 1982 document of the United Nations general assembly (Resolution 37/94, 18 December) affirms this. Furthermore, in 1975 the World Medical Association issued a statement declaring that "a doctor shall not countenance, condone or participate in the practice of torture or other forms of cruel, inhuman or degrading procedures, whatever the offense of which the victim of such procedures is suspected, accused or guilty."

In their daily work doctors engage with the concepts of "doing no harm," beneficence, justice, and autonomy. These are the principles of medical ethics that should direct doctors in instances of moral conflict (*BMJ* 1994;308:666). Some people may argue that there is no way that Muslim doctors could jettison their religious convictions in fulfilling medical duties and obligations. Without going into the legality or otherwise of this position, we consider it critical always to affirm the uniqueness, in comparison with other professions, of the call of doctors and the obligations of medical practice.

Local and regional as well as world medical assemblies should make a joint declarative statement on state enforced amputations. This should complement the existing regulations of the World Medical Association and the United Nations and should consider modern sociopolitical challenges. Trainers of medical students should emphasise the role that medical professionals can play in advocacy for patients, especially when patients can't speak for themselves.

Participation in punitive surgical procedures polarises medical practitioners along religious and political lines. It also raises questions about the independence enjoyed by the medical profession in all settings. Punitive surgical amputations erode the dignity of medicine and the age old trust in doctors held by the public.

Safeguarding people's health is medicine's utmost goal. Doctors must rise above religious and political influences. The time to salvage the situation is now, before medical ethics assumes different standards in different cultures.

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SOUNDINGS

The quest for transparency

The concept of transparency as an ideal state is not limited to political and business morality. By making our bodies transparent, the first indications of structural failure and malfunction can be detected at molecular level and problems can be remedied.

The body can be made transparent by tests, analysis, and imaging. Clearly, knowledge of the finest details of one's macro- and micro-anatomy and physiology, including biochemistry at the subcellular level, are of great advantage, because continuous preventive maintenance allows repair and replacement. Eventually, when all systems are thoroughly understood, the body will become imperishable.

Soon everyone will wear a chain around the neck carrying a disc that will contain the complete body plan, including the entire DNA composition, the results of all biophysical and biochemical tests, and the current images of every part. Naturally this record will also contain a complete medical history, including details of medication, repairs, and replacements.

There is no doubt that such a development will be a great advantage. The problem lies in defining how often the disc will need to be updated. Obviously, annual updates of all the data will not serve the purpose, as some data will need to be updated at more frequent intervals, and several values will ideally require daily monitoring.

In a universally digitalised healthcare system one could do away with the traditional, imprecise, subjective approach. It would be unnecessary to ask any questions; even an inquiry as to the chief complaint would be redundant, as would be the inspection and the physical examination. The computer would produce an accurate diagnosis and would select the appropriate treatment without delay. Automated systems would dispense drugs and robots could eventually perform most surgery. The bothersome centerpiece of the outmoded medical system, the consultation, could be eliminated altogether.

The lynchpin of the perfect system of transparency will be legislation: adherence to the maintenance schedule and the wearing of the disc around the neck must be made compulsory.

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