Book Review: The Rise and Fall of Modern Medicine by James Le Fanu
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Reviewed by Alick Dowling

Review

The new paperback edition, also available on Kindle was reviewed with enthusiasm by Michael Fitzpatrick, GP Hackney, London. (BMJ 21 April 2012). The original edition had widespread approval, though opposed by the Medical Establishment, especially cardiologists. It won many awards including the Los Angeles Times Book Prize in 2001. Friendly reviews came from colleagues Dr T. Stuttaford (Literary Review), Dr David Owen (Spectator), Dr Anthony Daniels (Sunday Telegraph).

A different readership saw a review of the original edition by John Brignell (a retired Professor of Industrial Instrumentation at University of Southampton) on Numberwatch. Excerpts are quoted below:


“... This is one of the most important books of the turn of the century. Dr Le Fanu has long been one of the finest of medical journalists, covering a wide range of subjects and carefully avoiding the pitfalls of junk science. In this tour de force he demonstrates how medicine has suffered from that disease of modern society, the retreat from rationality that marked the latter part of the twentieth century. In the first part of the book he records the rise of scientific medicine, delineated by twelve definitive moments, the great discoveries that did so much to extend and enhance human life. The second part of the book shows how, despite all these triumphs, society began to move away from the scientific approach. One of the major factors was the launch of the Social Theory and the author quite clearly demonstrates the fraudulent grounds on which it was based; its creator simply ignoring facts that were inconvenient. It was seized upon by both sides of the political spectrum. The right loved it because it promised to be cheap and the left went for anything with social in the title. Another important factor was the new genetics. Of course, the new epidemiology, with its casual abuse of marginal statistics, also played a major rôle.

The New Genetics in the aftermath of the therapeutic revolution of the post-war years - clinical science, pharmaceutical innovation and technical progress. This, in turn, has created an intellectual vacuum within which faulty and unrealistic assumptions of medicine’s ‘tasks and goals’ have flourished. Now, ten years on, the ‘massive global enterprise’ of medicine remains as powerful as ever. If not more so, and as Le Fanu suggests by the continued exponential increase in National Health Service expenditure and the revenues of the pharmaceutical industry. But the central thesis of The Rise and Fall... still holds, and so for this second edition I have revised but made no substantial changes to the original text. To this I have added an epilogue examining the three most significant factors in the continuing expansion of the medical enterprise over the past decade: the technical innovations that have extended the benefits of medical intervention to an ever ageing population; the ascendency of The New Genetics in the aftermath of the completion of the Human Genome Project to become the dominant form of medical research; and, most importantly of all, how an ever wealthier pharmaceutical industry has successfully subverted the proper aims of medicine to its own very profitable advantage.

It is a tribute to Le Fanu’s scholarship that ten years later the new edition needed few alterations; the central planks of his argument are still in place. A known problem of using a Kindle edition is not realizing how much one has read. Useful to know that 68% is the end of the text. Beyond are the formidable list of references and the index. The book has an impressive structure, with "A Lengthy Prologue: Twelve Definitive Moments” from 1941 to 1984 - (3% - 29% for Kindle users):
West of England Medical Journal
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1) 1941: Penicillin
2) 1949: Cortisone: see Appendix I
3) 1950: Streptomycin, Smoking and Sir Austin Bradford Hill
4) 1952: Chlorpromazine and the Revo-
lution in Psychiatry: see Appendix II
5) 1952: The Copenhagen Polio Epidem-
icism and the Birth of Intensive Care
6) 1955: Open Heart Surgery - The Last
Frontier
7) 1961: New Hips for Old
8) 1963: Transplanting Kidneys
9) 1964: The Triumph of Prevention -
The Case of Stroke
10) 1971: Curing Childhood Cancer
11) 1978: The First 'Test-Tube' Baby
12) 1984: Helicobacter - The Cause of
Peptic Ulcer.

Then Part I: The Rise, Part II The End of
the Age of Optimism, Part III: The Fall,
Part IV: The Rise and Fall: Causes and
Consequences, with a new Epilogue for
the Second Edition.

The book's first half tells the stories of
12 defining moments in the triumph of
scientific medicine in the second half
of the last century, listed above. A key
theme is the prevalence of luck and
serendipity over scientific insight, ac-
cident rather than design. The stories
chosen are a mixture of the well known
and the often forgotten. Le Fanu de-
scribes them with characteristic flu-
ency and flair.

The second half describes the Rise and
Fall, divided into 4 Parts. These are
further subdivided into 5, 4, 3, and 2
sections respectively. It is not possible
to discuss 14 topics in this review. Suf-
lice it to say that all are fascinating in
different ways, full of common sense
and engagingly written.

The 'golden age of drug discovery'
from 1940 - 1975 coincided with my
6 years as a medical student and 30
years of general practice. Then the
supply of genuine new drugs dwindled.
Statins were an exception, not making
their appearance until after I retired.
Many changes of emphasis (u-turns
actually) were a regular feature of the
advice we gave during those turbulent
years.

Turning to Part III: 'The Fall', in the 70s
optimism ended. New drugs became
rare, many being 'me too' concoctions.
The emphasis on "new genetics" and
"social theory" claimed ill health was
due to lifestyle, poverty and pollution.
In 1999 Le Fanu raised the polemical
stakes in his magisterial survey of mod-
ern medicine: "Much current medical
advice is quackery" and he recom-
mends "the simple expedient of clos-
ing down most university departments
of epidemiology" which "could both
extinguish this endlessly fertile source
of anxiety-mongering while simultane-
ously releasing funds for serious re-
search."

Dr Theodore Dalrymple likewise pro-
posed closing all clinics claiming to
treat drug addicts, the modern bureau-
cratic institutionalization of Romantic
ideas to put an end to the harmful pre-
tence that addicts are ill and in need
of treatment. In the former Soviet
Union, there was a saying of the work-
ers "We pretend to work, and they
pretend to pay us." Drug addicts could
say "We pretend to be ill and they
pretend to cure us." Junk Medicine, T.
Dalrymple p 114.

Nor need the NHS fund Obesity con-
ferences and clinics. They could close
with no harm to patients. Expensive
world-wide jamborees allow 'experts'
to discuss 'the obesity epidemic', but
no patients lose weight. During these
ten years, despite increased health
spending, there has been deterioration
rather than progress in health-care deliverance. Fashionable
risk factor epidemiology leads to over-
prescribing of powerful drugs to an
ever wider portion of the population,
exemplified by 'statins for all'.
Le Fanu's quest to curb the power of
the epidemiology establishment domi-
nates his account of 'The Fall' (Part 3)
with the failure of Social Theory & New
Genetics to deliver on their promises.
Among many other factors he discusses
the use of cholestyramine for mass
medicalisation of Americans in 1984
to cut blood cholesterol levels. It was
abandoned after nearly 2,000,000 men
had taken the powder for 7 years; 30 had
a heart attack compared with 38 in the
control group. The total deaths in both
groups were the same as 'other causes'
were responsible for deaths not attrib-
uted to heart disease.

To promote cholestyramine to prevent
heart attacks was a challenge for the
pharmaceutical industry when it re-
duced the risk of heart attack by only
0.5% at the price of chronic bowel
symptoms, depression and increased
risk of death from other causes. Neve-
theless it was so promoted until sta-
tins (much more effective in reducing
cholesterol) took over. Statins are still
promoted for everyone over 50 in the
UK.

Cholestyramine however has another
more practical use: a treatment of
choice for chronic idiopathic (self
induced) diarrhoea associated with
excess of bile acids and needing a
lower dose than that for cholesterol

Perhaps statins will find a niche as even
thalidomide has done for treatment of
some cancers.

At the end of the text and before the
final Appendices on Rheumatology and
Pharmacological Revolution in Psychia-
try (59% in Kindle), Le Fanu provides a
short but substantial Epilogue summa-
rized below:

Epilogue for the new edition
"The Broad outline of the medical
achievement of the post-war years is
by now familiar enough; the exuberant
therapeutic innovation epitomized by
the Twelve Definitive Moments had by
the 1980s plateaued, creating an intel-
lectual vacuum that would be filled by
the ambitious programmes of the New
Genetics and the Social Theory. Many
factors, as noted, have contributed to
that pattern of a 'Rise and Fall', but
the two phases divide on 'philosophi-
cal' grounds, with a radically different
interpretation of the nature of scien-
tific inquiry.

Howard Florey, Philip Hench and all
those who contributed to the golden
golden age of drug discovery had a feel for
the complexities of biology and,
by definition, the limits of current
knowledge. But they were also open
to those clues and anomalous obser-
vations in the clinic and laboratory
that, if pursued, might illuminate the
seemingly obscure, while possessing
the tenacity to turn them to thera-
peutic advantage. The impressive roll
call of technical innovation was simi-
larly predicated on recognizing that
while a profound understanding of the
pathological processes involved in, say,
arthritis or cataracts might be elusive,
they were nonetheless highly amena-
ble to technical solutions.

The Social Theory by contrast is based
on the almost antithetical premise,
that science already 'knows the an-
swers' - at least in principle - that
many common diseases are due simply
to the way people lead their lives, and
thus can be readily prevented. The
New Genetics too is grounded in an
all-encompassing and misleading sim-
plication': that the complexities of
life and disease can be reduced to, or
explained in terms of, the sequence of
chemical genes strung out along the
double helix.

The pattern of a Rise and Fall, writ-
ten ten years ago on the cusp of the
new Millennium, seemed to offer a grand unifying theory for the major historical developments in medicine as they had unfolded over the preceding half-century. A decade later, it is of interest to assess whether that pattern has 'stood the test of time' and where (inevitably) its judgments must be revised."

Le Fanu goes on to discuss these issues in a few cogent pages, considering the massive expansion of costs, with the equally massive increase in prescriptions and drugs prescribed to the ‘worried well’. Then there is the problem of the Human Genome Project with its explosion of funding biomedical research. He examines the technical developments that have extended the benefits of medical intervention to an ever ageing population. On then to "The New Genetics Triumphant - or Not" and finally (and most importantly), 'Big Pharma Rules' to consider the increasing influence of an ever wealthier pharmaceutical industry on the medical enterprise.

The latter involves the ‘blockbuster’ drug. "Behind a veneer of beneficence and commitment to scientific progress the different drug companies engage in ‘disease mongering’ while manipulating the findings from clinical trials to suggest their drugs are much more effective than they really are." Le Fanu takes the launch of the acid-suppressant drug Zantac as an example. "Promoted for treatment of stomach ulcers, it was the first ‘blockbuster’ with annual sales in excess of $1 billion. It was not an original drug but a ‘copycat pill’", developed by Glaxo, but very similar to the widely prescribed Tagamet (or cimetidine) originally described how Glaxo gave him $15,000 for a study in which he gathered a dozen members of a local running club, fed them a light meal of orange juice, cornflakes, low fat milk and banana and sent them on a run. He then monitored them for heartburn which he called ‘runner’s reflux (that he showed could be prevented by giving them Zantac). Glaxo then hired a public relations agency to spread the word across the country about this newly discovered problem among the nation’s runners and what brought them relief. It worked brilliantly. Zantac’s sales soared upwards to $2.5 billion to become, at the time, the biggest-selling single drug ever produced. Paul Girolami’s multi-faceted strategy of defining and expanding the indications for Zantac’s use, creating the public demand with carefully targeted publicity campaigns, and subsidizing the research of prominent physicians, became the master plan that would shape the activities of his competitors desperate to find the Holy Grail of their own blockbusters.

By 1990 there were a further five; ten years later the number had risen to twenty-nine and by 2010 there were more than 100 - twenty of which generated up to six times the revenue of Zantac in its heyday. It is scarcely possible to exaggerate the implications, not just in salvaging the fortunes of the pharmaceutical industry from ‘The Dearth of New Drugs’ of the early 1980s but also in guaranteeing its future prosperity; in just three decades up to 2010 its revenues would rise a staggering twenty-five fold."

Le Fanu adds The dramatic shift in the ethos and priorities dictated by the blockbuster imperative has resulted in ‘disease mongering’ and the subversion of ‘the probity of doctors and their academic institutions’. Previously heartburn, after all, did not seem to warrant a prescription drug and was perceived to be well managed by over the counter remedies. GORD elevated the medical importance of the condition by presenting it as an acutely chronic ‘disorder’ with an underlying physiological cause and the potential for serious long term consequences if left untreated - a far cry from the ‘plop-plop, fiz-fizz’ perception of standard heartburn remedies. Further instances have ‘talked up’ normal physiological events such as the-menopause which warrants long-term hormone-replacement therapy, premenstrual tension which becomes ‘premenstrual dysphoric disorder’, and variable blood pressure or cholesterol levels which are redefined in order to expand the numbers needing medication to lower them.

Prominent physicians or Key Opinion Leaders (KOLs) are paid generous consulting fees for their authoritative opinion on, for example, the need to treat the ‘hidden problem’ of social phobia’ or the necessity to lower cholesterol levels still further. This leads to the further regrettable consequence of the blockbuster phenomenon: the progressive entanglement and blurring of the boundaries between the pharmaceutical industry and the medical profession when it comes to evaluating the safety and efficacy of drugs. This discussion deals with the increasing ethical problems, exploring them at the end of this new Epilogue. Some readers may find this subject uncomfortable. James Le Fanu has a reputation for honesty and plain speaking. His readers rightly trust him; when he asks for their opinion he knows they can rely on them being honest in return. His strength is the loyalty of his readers. He has the enviable knack of giving the impression that he is writing personally to each individual.

This new edition is a worthy testimonial of which James Le Fanu can be justly proud.

Alick Dowling, 23 May 2012