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BOOK REVIEW

The Rise and Fall of Modern Medicine by James Le Fanu. New York: Basic Books, 2012 (revised and updated from 1999 Abacus edition). xviii + 590 pp. $22 (paperback). ISBN 978-0-465-05895-2.

This is a phenomenally instructive book, a level-headed analysis, and recommended without reservation.

Le Fanu is an M.D. in general practice in London and a regular columnist for *The Telegraph*. (The book is written with British spelling, and a few remarks are specific to UK's National Health Service, but everything is nevertheless relevant internationally, globally.)

The instructive first part of the book describes "twelve definitive moments" in the development of modern—i.e. contemporary—medicine: 1941, penicillin; 1949, cortisone; 1950, streptomycin, also smoking and Sir Austin Bradford Hill (epidemiology); 1952, chlorpromazine and revolution in psychiatry; 1952, polio epidemic in Copenhagen and birth of intensive care; 1955, open-heart surgery (the last frontier); 1961, new hips for old; 1963, transplanting kidneys; 1964, triumph of prevention (of strokes); 1971, curing childhood cancer; 1978, the first test-tube baby; 1984, Heliobacter, cause of peptic ulcer.

Those episodes are described at length, followed by an analysis of this "Rise" of medicine. Those defining events came from serendipitous discovery of drugs, the development of clinical science, for example Bradford Hill's statistical epidemiology, and staggering technological innovation: heart–lung machines and laparoscopic surgery. But credit for all this goes not only to the brilliant and persistent pioneering physicians and researchers, Le Fanu credits also "the mysteries of biology": the unanticipated, unforeseeable fact that antibiotics can be effective against a range of bacterial pathogens, and the equally astonishing fact that cortisone is capable of treating or ameliorating a staggering range and variety of conditions.

The analysis is both deep and level-headed, as illustrated by a cautionary note in the story of prevention: two adverse effects of informing someone that their blood pressure needs to be lowered: first, it induces worry and the associated nocebo effect of adopting "a sick role"; second, some small proportion of people find side effects of the treatment unacceptable—for example headache or (in men) impotence (pp. 154–155). Furthermore,

the dramatic benefit of lowering *obviously high* blood pressure to prevent strokes came to be extended to "treating" "mild hypertension," where medicating 850 people prevents only one stroke per year (p. 155). Similarly with cholesterol. "And so the great—and very desirable—project of preventing strokes by treating hypertension has enormously expanded the scope of medicine from treating the sick to finding, in the majority who are well, 'illnesses' they do not necessarily have, and treating them at enormous cost" (p. 156).

A central, crucial point made several times is that vast ignorance characterizes medicine: "The causes of the common diseases of middle life are simply not known, and self-evidently without knowing their cause, they can be neither prevented nor cured" (p. 203). The Rise of modern medicine "owed more to a synergy between the creative forces of capitalism and chemistry than to the science of medicine and biology" (p. 245). The "golden age of drug discovery, 1940–75" is summarized on p. 246. Le Fanu acknowledges that some genuinely useful drugs were discovered more recently, but from the 1990s on most of the "blockbuster" drugs have been simply variants of discoveries from a couple of decades earlier. Two cited more recent discoveries are a vaccine against hepatitis B, and the triple-therapy cocktail for treating AIDS (p. 284)—but the latter is a hugely damaging mistake based on the erroneous view that HIV causes AIDS.[1] Many newer drugs are of doubtful efficacy, for example prescribed in Alzheimer's disease or multiple sclerosis (p. 285).

The marvels of technology that contributed to the "Rise" have become abused: too much unnecessary testing (pp. 289–291) with subsequent harm from misguided treatment, for example foetal monitoring (pp. 291–295); and prolonging quality-lacking, burdensome life by methods that may be responsible for about one third of the $62 billion spent in the USA on intensive care (pp. 296–299). So the optimism engendered by the Rise dissipated, and the Fall ensued, guided by two misguided ideologies: "The New Genetics" that looks to genomes as the cause of every ailment, and the "Social Theory" that assigns so much blame to environmental causes and lifestyle.

Genetics, Le Fanu argues, can hardly be a very significant factor in common human diseases since we have evolved as an extremely successful species. Truly genetic disorders are not very common. For such diseases as cancer, genetics contributes only as one of several factors, of which the most important one is ageing (p. 347).[2] Carriers of the gene implicated in retinitis pigmentosa may or may not develop the disease (p. 349). There is no simple path from genome to later development. The original idea that one gene codes for one protein was wrong. Genes interact with one

another, so-called "junk" DNA does have important functions, and complex signaling systems modify what genes do and turn them on and off at just the appropriate times (Ast 2005).

Social Theory indicts lifestyle including diet. However, the first test of cholesterol-lowering drugs (cholestyramine) found no difference in all-cause mortality between treated and control groups. Admittedly, there were fewer heart attacks among the treated—30 versus 38, group sizes both 1,900. So a reduction by 8/38, about 25%, enough for proponents of lowering cholesterol to cite it in support. But since all-cause mortality was *not* decreased, the treated people were simply dying of other causes, perhaps even from side effects of the treatment (p. 377).

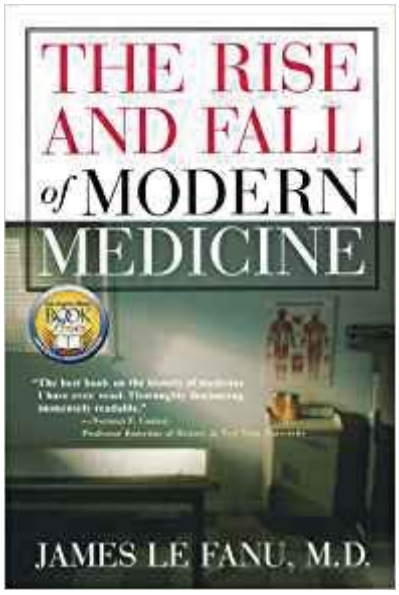
Narrowing of arteries, atherosclerosis or arteriosclerosis, "when examined under the microscope, is strongly suggestive of an inflammatory process." Indeed, one study of heart attacks found chlamydia infection in a significant proportion of victims; and later studies concluded that the development of arteriosclerosis depends on the number of various infections encountered. Moreover, the changing incidence of heart disease over time, rising and then declining again like a drawn-out epidemic (p. 375) is consistent with an infectious cause. At any rate, cholesterol levels in the blood have turned out not to be the critical causative factor. Nevertheless, the interests vested in the cholesterol theory have been so powerful as to maintain hegemony of "the great cholesterol deception" (pp. 381–382).

Moreover, Le Fanu argues, it is very difficult to change the body's internal physiology by changing diet. Evolution has produced interacting systems that keep physiological variables within healthy limits by increasing and decreasing production of all sorts of substances. It is quite implausible that changing diets could change drastically the equilibrium levels of cholesterol in the blood (p. 382).

"The notion that cancer might simply be caused by the sorts of food we eat is strongly suggestive of quackery" since the incidence of cancer "is so strongly related to age," increasing ten-fold per decade of age (p. 383). The evidence offered for diet as a cause consists primarily of such comparisons as between rates of pancreatic cancer in Connecticut (60.2 per million) and in India (21 per million) (p. 386). What else than diet could account for this?

So "cancers common in the West, such as those of the breast, colon and pancreas, have been attributed to a 'high-fat' diet." But in the USA, there is no difference between Mormons and Seventh-Day Adventists in the incidence of these cancers, yet the former are meat-eaters whereas the latter are vegetarians (p. 387).

Le Fanu is similarly skeptical of claims of significant harm from the "minuscule" amounts of pesticides and the like in food. He cites the



study by Ames (1990) which found that synthetic pesticides were no more carcinogenic in animal models than are the natural pesticides in all common fruits and vegetables; and 99.9% of all pesticides to which people are exposed are those natural ones (pp. 392–393). The concern that "feminising [sic] chemicals" are responsible for declining male fertility are similarly implausible in view of the presence of natural oestrogens in such foods as cabbage, carrots, coffee, corn, garlic, olive oil . . . (pp. 393–394). Aaron Wildavsky (1995) is cited: "Of all the subjects I have studied in over thirty years as a social scientist, environmental issues are the most extraordinary in that there is so little truth in them" (p. 395).

The data that the New Genetics and the Social Theory seek to explain are gathered by epidemiology, which cannot however discover an unknown biological factor as did the serendipitous observations that led to antibiotics and steroids. Epidemiology can only study observables, but the common chronic ailments arise from ageing or from unknown biological factors; so explanations that epidemiology seems to offer "are likely to be pseudo-explanations" (p. 398), misleading like the "cancer-causing genes" of the New Genetics or the dietary and environmental claims of the Social Theory. Unfortunately, it is easy to do epidemiology, hence the myriad studies faithfully reported in the media that find that coffee causes cancer, and then that it does not; and that fat causes heart disease, and then that it does not; and so on (p. 403). Contemporary medical epidemiology lacks the rigorous methodology that it needs (p. 399), yet policies and recommendations are based on less than rigorous epidemiological reports, for example that baked beans prevent cancer or that children might ingest carcinogenic chemicals if they chew plastic ducks (p. 404).

The causes are simply not known for most diseases: neurological (e.g., multiple sclerosis), rheumatological (e.g., rheumatoid arthritis), and of the gut (e.g., Crohn's disease). There are unknown biological factors somehow at work. Le Fanu believes that there may well be unrecognized *infectious* agents involved. Multiple sclerosis (MS), he suggests, has characteristics of

an infection: it is episodic; much more common in some geographic areas than others; became 10 times more prevalent in Britain over 50 years; and, a common feature of infectious disease, it has become less severe over time, bringing death after about 8 years in earlier times but after about 25 years nowadays. Admittedly, there is a genetic association, since the incidence of MS is quite high (one in 50) if a sibling has MS, and one in two if the sibling is an identical twin. Nevertheless, Le Fanu believes this represents *susceptibility*, not a direct genetic cause (p. 408). Most suggestive of all: MS was unknown in the Danish Faroe Islands before 1943, but 16 cases occurred (in a population of only 30,000) between 1943 and 1949, after the islands had been occupied by 7,000 British troops. So the cause of MS may be a widespread infection to which only a small proportion of people are susceptible.

Childhood leukemia, similarly, occurs in clusters in some geographic areas that seem to have this in common: they were previously isolated, small communities that experienced an influx of a large group of outsiders (p. 410).

Admittedly it is quite radical to suggest that MS or childhood leukemia could be owing to infections, but Le Fanu also gives suggestive evidence (see above) that heart disease reflects something infectious and not cholesterol levels; and he points out that:

- The Heliobacter that causes peptic ulcers was not discovered until 1984.
- Dandruff is caused by a fungal infection.
- Lyme disease and syphilis are both caused by spirochetes bacteria that are notably difficult to detect, especially in chronic infections that sometimes persist if treatment in the acute phase of infection has not killed all the bacteria.
- Some believe that rheumatoid arthritis may be induced by the proteus bacterium (p. 411).
- Prions exemplify the quite recent recognition of an entirely new genre of infectious agents.

Unfortunately, a retrovirus is also mentioned as a possible pathogen (p. 413), citing HIV, whose implication as the cause of AIDS turns out to be mistaken.[3] Earlier (p. 284), the book had been misleading in citing favorably for treating AIDS the mid-1990s triple-therapy cocktail, all of whose components are seriously toxic (Bauer 2007:130–131). It bears recalling that Luc Montagnier, credited as the co-discoverer of HIV, had shown that the cell-killing cause of AIDS was not HIV but rather a mycoplasma.[4] And

mycoplasmas would be an additional example of the often unrecognized or unsuspected infectious agents (Pease 2005).

The notion that modern medicine experienced a Fall after an initial rise "is admittedly difficult to accept," Le Fanu concedes. But he asserts this is actually a general phenomenon: "Every field of human activity has its Golden Age, which is followed by a decline in creativity and new ideas" (p. 418), citing geology; natural history culminating in Darwin and evolution by natural selection; theoretical physics peaking with relativity and quantum mechanics [and declining into string theory!]. That generalization is said to be consistent with a "Law of Acceleration" proposed by "the American historian Henry Adams," but no source is cited. However, the idea that human activities naturally experience a decline following a notably successful rise was explicitly discussed by Parkinson (1958), illustrated by the history of the British Navy.

This book is an essential addition to my bibliography[5] of works describing what has gone wrong with modern medicine. Every reader will surely learn something from it and be stimulated to further thought and enquiry.

Notes

[1] Henry H. Bauer, The Case against HIV. http://thecaseagainsthiv.net

[2] Most people likely "know" what the media hyped after discovery of the first gene (BRCA) that supposedly predisposes to breast cancer. The media did not subsequently disseminate with equal fervor the finding that about 70% of breast cancers are not associated with heredity, and the BRCA genes are held responsible for only one quarter of the other 30%: Tabitha M. Powledge, "Breast cancer genes: Beyond BRCA1 and BRCA2" (Genetic Literacy Project), 8 April 2014. https://www.geneticliteracyproject.org/2014/04/08/breast-cancer-genes-beyond-brca1-and-brca2

[3] Rethinking AIDS, http://rethinkingaids.com
The Case against HIV, http://thecaseagainsthiv.net

[4] References 26 to 31 in The Case against HIV, http://thecaseagainsthiv.net

[5] What's Wrong with Present-Day Medicine, https://www.dropbox.com/s/2cxs7a7862kmism/What%27sWrongWithMedicine.pdf?dl=0

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References Cited

Ast, G. (2005). The alternative genome. *Scientific American*, (April):58–65.

Ames, B. N., & Gold, L. S. (1990). Chemical carcinogenesis: Too many rodent carcinogens. *Proceedings of the National Academy of Science*, *87*:7772–7776.

Bauer, H. H. (2007). *The Origin, Persistence and Failings of HIV/AIDS Theory.* Jefferson, NC: McFarland.

Parkinson, C. N. (1958). *Parkinson's Law, or the Pursuit of Progress*. London: John Murray.

Pease, P. E. (2005). *AIDS, Cancer and Arthritis: A New Perspective*. Bromsgrove, UK: Jigsaw Design and Print. ISBN 0-9550567-0-5; Essay Review, *Journal of Scientific Exploration*, *21*(2007): 595–605.

Wildavsky, A. (1995). *But Is It True? A Citizen's Guide to Environmental Health and Safety Issues*. Cambridge, MA: Harvard University Press.