Many new medical interventions raise important questions about the goals of medicine and the moral legitimacy of medical enhancement. Most interventions that cure, treat, or prevent diseases can also enhance or change human beings. Plastic surgery can repair a child’s cleft palate and reduce the size of a person’s nose. Viagra can help a man overcome sexual dysfunction and allow a man with normal sexual function to improve his sexual performance. Preimplantation genetic diagnosis can help a couple prevent the birth of a child with a devastating genetic disease and help a couple choose the sex of their child.

Even if we could agree that one should not use medical technology to enhance human beings, we would still need to find a way to distinguish between enhancement and therapy. The difference, according to many people, depends on the definition of disease. Medical therapies cure, prevent, or treat diseases, whereas medical enhancements do something different. According to a common theory, a disease is a harmful deviation from the normal range of human variation with respect to a particular trait. For example, a person with congenital heart failure cannot pump blood normally, and a person with type 1 diabetes cannot produce insulin.

What is considered normal in one society or culture, however, may be considered abnormal in another. An 11-year-old who is 4 ft tall might be considered a dwarf in the United States but normal in another country. In ancient Rome or Palestine, a person who heard voices inside his head might have been regarded as a prophet. Today, schizophrenia might be diagnosed in someone with that trait.

The Pursuit of Perfection, by Sheila Rothman and David Rothman, provides valuable insights into the debate about medical enhancement by exploring the recent history of medicine, including hormone-replacement therapy for women and men, plastic surgery, liposuction, the use of human growth hormone for short children, and research to promote longevity and prevent aging. The authors examine the social, economic, and cultural factors that have contributed to the debate about enhancement. They show that pharmaceutical companies, physicians, and surgeons have profited from selling patients medical products and services that are designed to enhance normal functioning, and that patients have sought and demanded these medical interventions in their pursuit of youthful vigor, femininity, virility, beauty, or happiness.

The authors also provide some useful insight into the conflicting attitudes of the medical profession toward enhancement by showing that some physicians have condemned various forms of enhancement as contrary to the goals of medicine, whereas others have promoted enhancement as a way of helping patients realize their goals and achieve happiness. The book is an important contribution to the debate about medical enhancement and should interest clinicians, scientists, policy analysts, and scholars. The book’s most important message is that it will be very difficult for society to set boundaries between therapy and enhancement and to regulate enhancement.

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The Doctors’ Plague: Germs, Childbed Fever, and the Strange Story of Ignác Semmelweis

Many people have heard of Semmelweis, whose fame rests on having shown in the 1840s that deaths from puerperal fever (an infection following childbirth) at the Vienna Lying-in Hospital could be reduced by making doctors and medical students wash their hands in a disinfectant solution before entering the maternity ward. His observations were largely ignored during his lifetime.
and for many years after his death in 1865. Near the end of the 19th century, however, and especially after the publication of a hagiographic biography in 1909, Semmelweis's reputation was raised to the skies. I know of no one else in the history of medicine whose reputation rose from the extreme of oblivion to reverence as one of medicine's greatest heroes.

After he had acquired heroic status, it was asserted that Semmelweis was the first to discover that puerperal fever was contagious, that his work had led to the abolition of puerperal fever, that his now famous treatise, The Etiology, the Concept, and the Prophylaxis of Childbed Fever (1861), was one of the greatest medical works of the 19th century, and that lack of support by his colleagues in Vienna drove Semmelweis mad. Since the 1970s, however, a small band of Semmelweis scholars have shown that few of these assertions are correct and that the truth about Semmelweis is much more complex — and certainly more interesting — than the conventional picture.

That Semmelweis made some brilliant observations in 1847 on the manner in which puerperal fever is transmitted is beyond doubt. But he was his own worst enemy. His dogmatism, arrogance, hostility, and unforgivable rudeness to colleagues who dared to question his views, combined with his failure to publish his findings for 14 years, damaged his reputation. Such revelations prompted Sherwin Nuland to publish a paper entitled “The Enigma of Semmelweis: An Interpretation” in 1979. This book is a welcome expansion of that paper, with important additional information.

There is broad agreement within the small group of historians who have studied Semmelweis since the 1970s that he possessed a complex and difficult character and about how his reputation rose from oblivion to fame. There are still disputes about both the nature of the mental illness from which Semmelweis suffered in his last few years and the cause of his death. Nuland, who believes that Semmelweis died as a result of a brutal attack by the staff of the lunatic asylum to which he had been admitted a fortnight before his death, has produced new evidence that supports this theory. But Nuland’s certainty that Semmelweis suffered from Alzheimer's disease is not shared by most historians. That he was mentally deranged, or insane, or mad (whichever term you prefer) in his last few years is beyond dispute; but retrospective diagnosis of a mental illness that occurred in the 19th century is so difficult that exactly what illness Semmelweis was affected by may never be known.

Unfortunately, this book has no index, no footnotes or endnotes, and only a brief bibliographic note. There are many places where one longs to know the evidence for new data; and there is the problem of the first chapter, which presents a detailed account of a young girl who becomes pregnant in 1847, is admitted to the General Hospital of Vienna, and dies of puerperal fever. The chapter is fictional in style and contains colloquial speech. For instance, a medical student says to the girl, “Please pay attention, young miss!” and the girl says to a nurse, “Please don’t tell me I could die having a baby. Oh, please, please, Nurse, I couldn’t bear to think of it,” to which the nurse replies, “Hush, hush. . . . You’ll get yourself all worried and excited for no reason.” Because no source is given, I can only assume that part or even the whole of the first chapter is
historical fiction. If so, it is out of place in an otherwise admirable history of the life and work of Semmelweis.

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THE ABUSE OF MAN: AN ILLUSTRATED HISTORY OF DUBIOUS MEDICAL EXPERIMENTATION


The Abuse of Man describes numerous unethical human experiments that were performed from the 18th century to the present. On its cover is a photograph taken in 1942 at the Dachau concentration camp of two Nazi “doctors,” Holzloehner and Rascher, observing a human subject immersed in ice water during an experiment on hypothermia. Neither wears the physician’s white coat; both are in SS uniforms. Pictures like this have often been used by physicians to distance themselves from Nazi medical atrocities and the Nuremberg Code, the authoritative set of 10 directives for human experimentation formulated by U.S. judges at the trial of the Nazi doctors at Nuremberg, Germany.

The author, Wolfgang Weyers, is a German dermatologist. He seeks to plumb the depth of his own specialty, which he refers to as a Jewish specialty “intimately, integrally and inextricably linked to unethical human experimentation,” and to place it on a continuum with the Nazi doctors and their atrocities. In this regard, the book, with its own rather bizarre focus on Jewish dermatologists, continues the author’s earlier work, Death of Medicine in Nazi Germany: Dermatology and Dermatopathology under the Swastika (Lanham, Md.: Madison Books, 1998). In cataloguing U.S. experiments, Weyers seems fixated on Jewish dermatologist Albert M. Kligman, at the University of Pennsylvania, and his unethical experiments on the skin of inmates at Holmesburg Prison, in Philadelphia. This is a valid example of dubious medical experiments and the abuse of a vulnerable population in the name of research. But by overemphasizing dermatology, the author loses perspective even as he tries to put things into perspective.

Illustrations have the power both to convey information and to provoke emotion. But to portray dubious dermatologic experiments in a continuum with the Nazi experiments and with the atrocities of Unit 731 of the Imperial Japanese Army in China is extravagant. Imprudent ethical faults in research on prisoners, orphans, and patients are different in both scale and design from the experiments in industrialized Nazi concentration camps, which had torture as their method and death as their end point.

The author is correct, however, to insist that the Nazi atrocities hold critical lessons for physicians worldwide. How was it possible, as General Telford Taylor asked in his opening remarks at the Doctors’ Trial, in 1946, that these physicians “all of whom were fully able to comprehend the nature of their acts [could be] responsible for wholesale murder and unspeakably cruel tortures?” During cross-examination of Dr. Andrew Ivy, the prosecution’s major expert witness at the Doctors’ Trial, Nazi defense lawyers referred to particular U.S. and European experiments to suggest that Nazi physicians had followed common medical research practices and therefore were on a continuum with U.S. and European researchers. The judges at Nuremberg were not convinced; neither are readers of The Abuse of Man likely to be.


Like Telford Taylor at Nuremberg, Nobel laureate and Holocaust survivor Elie Wiesel continues to ask critical questions about the Nazi doctors. “Why did their education not shield them from evil? How is it possible? How was it possible?” Wiesel replies, “I really do not have the answer.” But he does say, “Human beings were not human beings in their eyes. They were abstractions. This is the legacy of the Nuremberg Tribunal and the Nuremberg Code.