

Courtesy of Dr. Bernard Lown

American Cardiologist Bernard Lown and Russian Cardiologist Eugene Chazov, Cofounders of International Physicians for the Prevention of Nuclear War, Amsterdam. 1983.

used by the communists. These sentiments were magnified, rather than quieted, when the IPPNW received the Nobel Peace Prize. The *Wall Street Journal* published an editorial titled "The Nobel Peace Fraud," which began, "The Nobel Peace Prize hit a new low." The *New York Daily News* headline was "Soviet Propaganda Wins the Prize." The *San Diego Union* labeled it "A Tarnished Prize." West German Chancellor Helmut Kohl issued an appeal to the Nobel Committee to rescind the prize.

Today the Cold War is over, but the challenge of organizing against nuclear weapons remains relevant. It is not easy to focus on a single issue, even one as important as nuclear weapons, when other problems and outrages are begging for attention. Physicians for Social Responsibility (PSR) struggles to stay focused on nuclear disarmament when the United States has launched one war of aggression and is threatening to start another. However, the more issues an organization takes on, the more disagreements are likely over priorities and strategies. The many meetings and discussions that are detailed in this memoir convincingly illustrate how difficult it is for likeminded, good people to agree on how to keep working together despite their disagreements.

The most important message I was left with after reading this book is this: the struggle against nuclear weapons was so much harder then. Lown, his colleagues in the IPPNW and PSR, and other activists have done most of the heavy lifting. Around the world, citizens and their leaders now know that a nuclear war would not be survivable, and the vast majority of people support the global elimination of nuclear weapons. Even former "cold warriors" such as George Schultz and Henry Kissinger have called for a world free of nuclear weapons. And yet, in 2008, the United States and Russia still maintain thousands of nuclear weapons on hair-trigger alert. As Lown puts it, "Responsible governments were holding entire nations hostage with a suspended sentence of mass murder. . . By acquiescing to such policies we were engaging in the most abysmal collective failure of social responsibility. . . Where was the unrelenting outcry against nuclearism from academic and religious leaders? Where were the voices of moral outrage?"

These questions are even more relevant today, since the administration of President George W. Bush has expanded the strategic role of nuclear weapons from one of deterrence to include possible preemptive use. As physicians in the 21st century, we have the responsibility to contribute to one of the most important goals in history: the global elimination of nuclear weapons. In *Prescription for Survival*, Lown encourages us to help finish the job he and his colleagues at the IPPNW and PSR so capably started — before it is too late.

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EVOLUTION IN HEALTH AND DISEASE

Second edition. Edited by Stephen C. Stearns and Jacob C. Koella. 374 pp., illustrated. New York, Oxford University Press, 2008. \$180 (cloth); \$85 (paper). ISBN 978-0-19-920745-9 (cloth); 978-0-19-920746-6 (paper).

HIS BOOK INTRODUCES AN EVOLUTIONARY approach to medicine and offers the reader extensive coverage of medical topics to which evolutionary principles can be applied. The book's 23 chapters were written by an international team of 47 leading researchers from the United States, the United Kingdom, France, Switzerland, and New Zealand. This second edition has an extensive, updated bibliography of more than 1500 references, and the chapters are organized into five parts: part 1, an introduction to evolutionary thinking for medicine; part 2, "The History and Variation of Human Genes"; part 3, "Natural Selection and Evolutionary Conflicts"; part 4, "Pathogens: Resistance, Virulence, Variation, and Emergence"; and part 5, "Noninfectious and Degenerative Disease" (which includes aging). There is also a detailed

10-page index that helps the reader navigate a great diversity of topics.

The main content of this book is well summarized in its introductory chapter, an overview of the evolutionary approach to complex medical issues. The authors are aware of the skepticism among medical experts regarding the practical uses of evolutionary theory. They address these concerns from the very beginning, asking a series of questions: "Should doctors and medical researchers think about evolution? Does it bring useful insights? Would doctors and researchers who learned a substantial amount about evolution be more effective than a control group that learned only the usual rudiments? Would providing such education improve health enough to justify the cost?" They acknowledge that evolutionary theory is not helpful to surgeons, but they contend that it may be useful to internists, pediatricians, epidemiologists, and geneticists when they are "prescribing antibiotics, managing virulent diseases, administering vaccinations, advising couples who have difficulty conceiving and carrying offspring to term, treating the diabetes and high blood pressure of pregnancy, treating cancer, understanding the origins of the current epidemics of obesity, diabetes, and autoimmune diseases, and answering patients' questions about aging." This statement is supported by several examples, and the chapter concludes with a section - "What Doctors Need to Know about Evolution and Why" - that lists 12 essential facts about evolution.

The introductory chapter is so well written that it may be sufficient reading for busy doctors. The authors themselves "acknowledge that much medical practice proceeds just fine with little need for a theoretical foundation. Medicine is a profession that offers practical help." They go on to explain that evolution "is not an alternative to existing medical training and research. It is a useful basic science that poses new medical questions, contributing to research while also improving practice." For this reason, the book will be of particular interest to biomedical researchers.

The major evolutionary insight in this book is that many diseases in developed countries (obesity, diabetes, breast cancer, autoimmune diseases, and heart disease) are promoted by a mismatch of the human body to the modern environment — the environment is changing far more rapidly than humans can evolve. This insight may have some useful practical implications. For example, it may help in convincing patients that physical inactivity, which is so common in developed countries, is a serious health issue. The same reasoning justifies the urgent need for a radical revision of the modern diet to a healthier standard that better matches the ancestral needs of the body; such a diet would include foods with a much lower glycemic index and a much higher proportion of n–3 unsaturated fatty acids. These important topics are well covered in chapter 20, "Lifestyle, Diet, and Disease: Comparative Perspectives on the Determinants of Chronic Health Risks," by William R. Leonard.

Another notable contribution is chapter 9, "Perspectives on Human Health and Disease from Evolutionary and Behavioral Ecology," by Beverly I. Strassmann and Ruth Mace. It is a thoughtful review of the supposed trade-offs between longevity and fertility, and it refutes the highly publicized claims that longevity comes at the cost of impaired fertility among long-lived persons.

One minor weakness of the book is its neglect of alternative, nonevolutionary explanations of the human condition. For example, human aging is discussed mainly in narrow evolutionary terms, while the systems reliability theory, a more general theory of systems failure, is ignored. Nevertheless, this book will stimulate fresh thinking and new approaches to traditional medical problems.

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DNA: PROMISE AND PERIL

By Linda L. McCabe and Edward R.B. McCabe. 339 pp., illustrated. Berkeley, University of California Press, 2008. \$39.95. ISBN 978-0-520-25187-8.

R ECENT PROGRESS IN HUMAN AND MEDICAL genetics has been nothing short of astonishing in its breadth, complexity, and speed. There have been few comprehensive reviews of the ethical and social issues that are posed by achievements in the field, particularly those that came after the completion of the Human Genome Proj-