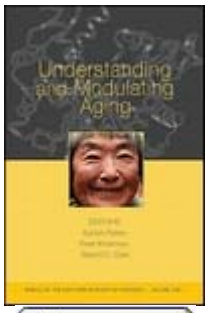
PsycCRITIQUES
Contemporary Psychology: APA Review of Books
American Psychological Association

We Can't Live Forever—but Maybe a Little Longer

A review of



Buy from amazon.com

Understanding and Modulating Aging
by Suresh I. S. Rattan, Peter Kristensen, and Brian F. C. Clark (Eds.)

Malden, MA: Blackwell Publishing on behalf of the New York Academy of Sciences, 2006. 508 pp. ISBN 978-1-57331-599-9. $125.00

Reviewed by
Richard H. Cox

The search for utopia continues in the lives of the learned and unlearned alike. This very learned edited volume shreds many hopes and myths while simultaneously offering scientific evidence for a better quality of life and perhaps a longer lifetime as well. The discourses are biologically and medically astute, never simplistic, and not for leisurely reading. A topic known to most of us as being fraught with flimsy arguments, guesswork, and a great deal of conjecture is presented by no fewer than 50 professionals and teams of professionals worldwide. The authors are to be congratulated for presenting such an erudite and precise publication. Unfortunately, only a small audience of psychologists will benefit from its contents because of the detailed scientific language necessarily used. Those with a solid biological, biochemical, microbiological, cell biology, and genetic education will understand the material best.

Many of the detailed and precise discussions may, however, be understood when translated into the more common language used by psychologists who practice within the realm of what we have come to know as medical psychology. Psychologists

reading this book will readily recognize how much more we need to know if we are to keep up with those who are also devoted to helping us all have a better quality—if not quantity—of life.

The ethics of what might be called life extension are seriously debated. The psychologist must surely be involved in the psychological ethic of human life and the specific ethics of his or her involvement in the prolongation of life. The concept of life prolongation of necessity impacts the ethics of psychologists who deal with end-of-life issues and other ethical dilemmas facing our profession. Psychologists will find an interesting inversion of philosophy regarding the inviolability of life within the conservative and more liberal frames of reference. Although we like to stay neutral on many of the politico-religious-psychological issues of our day, the observant psychologist-reader will find many of these current issues not so thinly veiled in this volume and addressed within the context of research. Such issues as abortion, stem cell research, euthanasia, murder, and even the death penalty are involved in the psychological ethos and the specificity of ethical application to the psychological ethic itself. This volume, although apparently not intentionally, forces us as students of human behavior to face forthrightly and concretely that which we might otherwise consider as abstract philosophical issues.

The role of nature and the role of science clearly fall within the purview of the psychological debate. The biological structuring of the scientific findings of the cellular biology cited in this volume make for some very strong questions to be asked by those dealing with human behavior and particularly by those who believe that, in spite of genetics, transformation can result from psychotherapy and other psychological modalities. Although the volume is specific to the topic of aging, the ramifications of the material presented are far-reaching and penetrate the basic philosophy of psychology. We are once again shown that the age-old debate of nature versus nurture will never be settled. However, in an attempt to be fair, the authors admonish psychologists to “listen up” because genetic knowledge, cellular biology, and pharmaceutical interventions are more and more

becoming essential elements in the practicing psychologist's armamentarium. The volume clearly shows the thinking psychologist the imperative role of the hard sciences in understanding and effectively applying the behavioral sciences.

The authors compositely affirm what we already know: namely, that there is no single, simple, or understood cause for the aging process but that aging is a multicausal phenomenon. Aging is, per se, largely a human issue. Other creatures, as far as we know, are not concerned with longevity but only with self-preservation for the moment at hand. The human animal is one of the few living creatures that most often dies simply from old age rather than being killed by predators. Apart from wars, trauma, and pandemics, human beings die from advanced glycation end products and major organ failure. Simply stated, we burn up and wear out. Because no cell is designed to live forever, longevity depends on the body's ability to repair tissue faster than it wears out. Many psychologists (as well as many other professionals) have been taught that the process of aging is largely due to the free radical theory, which is put into great question in this volume. There appears to be much less reliable evidence than was previously thought that anti-free radical therapy will significantly alter the role of basic metabolism and the genetic influences of electrical, chemical, and structural idiosyncrasies of an individual. Contributing author Howes states emphatically that “the free radical theory has fallen” (p. 25); however, in the same volume, other authors continue to assert the value and correctness of the free radical theory. As with most research, the truth will be found, one hopes, in more research.

Author Harman strays from the traditional allopathic model to support the use of nutraceuticals (herbs, natural substances, etc.). Traditional allopathic medicine has not only doubted but also debunked this approach. Only in recent years have a few brave souls been willing to stand on the mounting evidence that such approaches are not only clinically helpful but scientifically researched and found to be of great benefit. If any of the antiaging additives have value for life extension, they are apt to be nutraceuticals. Traditional medicines have more to do with symptom alleviation

than with cellular health. Harman gives much deserved credit to the many products on the market that are actually natural products prepared in more controlled, regulated, and entrepreneurial packaging. Because psychologists are often more open to alternative treatment modalities, this approach may be of considerable interest.

There are distinct strengths in this volume for the psychologist who is willing to read it although he or she may not fully understand its contents in detail. It offers a broad survey of the current state of knowledge regarding the process of aging. The treatise “The Value of Life and the Value of Life Extension,” by Horrobin (p. 94), is very helpful in supporting the true ethic of psychology and our commitment to individual differences and the dignity of every human being. The chapters dealing with the degenerative brain offer a more solid scientific basis for what the practicing psychologist finds in relation to Alzheimer's disease as well as diabetes and other degenerative diseases. The neuropsychologist will find the discussion regarding lipopigmentation of the brain, microglial cell degradation, and the role of apoptotic bodies (p.158) to be not only fascinating but also basic to understanding the degenerative neuropathology seen in the clinical neuropsychological examination. The cardiac rehabilitation psychologist will find the discussion regarding the role of inflammation and infection (p. 282) quite intriguing, as most education in this area has not emphasized the role of these pathogens in cardiomyopathy.

The psychologist-reader would do well to pick and choose from the depths of information in this volume, paying particular attention to those topics that are just beyond his or her grasp. Because the evolution of psychological practice is moving more and more in the medical direction, each reader needs to identify his or her special interest area and read those sections in this volume most pertinent to that specialty. In this fashion, we can see areas into which we must grow as clinicians, and we can stretch our mind by learning small bits at a time in those areas alien to our basic education. Even the nonphysiologically educated reader will come away from this volume with a new appreciation for the precise, painstaking, and unending research involved

in the tiniest discoveries. The completion of the genomic picture of the human simply demands that we all stand in awe.

The weaknesses in this volume are many—as are the strengths. As I have pointed out, the biologically and medically trained professional will appreciate the primary strength of this volume. However, psychologists will have a profound appreciation for the physiological processes at work in their patients (to say nothing of themselves). Although it is technologically erudite, there are many practical aspects to this book for the reader willing to keep a medical dictionary and other reference material handy.

PsycCRITIQUES February 14, 2007 Vol. 52 (7), Article 14
1554-0138