Introduction

HOW TO LIVE FOREVER

Man is more sick, uncertain, changeable,
indeterminate than any other animal, there is no
doubt of that—he is the sick animal.

FRIEDRICH NIETZSCHE,
On the Genealogy of Morals (1887)\textsuperscript{1}

Illness somehow defines us. It tells us who we are. It informs us, in a
sense Nietzsche understood in his bones, that we are creatures
marked by a uniquely unstable relation to health. Unlike robots or
rabbits, humans possess a tendency toward repeated and often pro-
tracted illnesses that seem finally less a flaw in our design than a
mysterious signature. Walk through any suburban mall, however,
and you cannot avoid seductive displays promising miracle cures,
ageless bodies, and perpetual well-being, as if our main task in life
were to defeat mortality. The search for perfect health and vigor is an
ancient impulse. Ponce de León pursued tales of a youth-restoring
fountain all the way into the swamps of sixteenth-century Florida.
Few people today believe that fitness gurus, herbs, hormone thera-
pies, and weekend yoga classes offer something so literal as everlast-
ing youth, yet as a distant prospect or utopian glimmer, the promise of living forever—or at least for a very long time—increasingly fires the imagination of an audience eagerly consuming news of each fresh medical triumph over disease. The dream has a notably postmodern grain. Although various religions propose an eternal afterlife, it took secular Western civilization to invent cryonics, which deep-freezes the diseased body until a cure is found. More than a scheme to exploit our fears of death, cryonics employs a futuristic technology to extend ad infinitum the curative agenda of contemporary biomedicine. The goal is consistent with wider cultural fantasies that (without the need for religion or the inconvenience of a soul) project the flesh into an indefinitely expanded future-perfect state devoid of illness. In a move that the prescientific Europe of Ponce de León would have found sacrilegious or incomprehensible, our culture has declared war on biology.

I do not mean to misrepresent the medical struggle against illness and impairment as inevitably a form of warfare, although a militaristic vocabulary of battles and counterattacks still dominates medicine. The miniature electronic hearing aid, for example, represents a huge advance beyond the clumsy ear trumpets of Victorian times. It is a gain for the human spirit; it enhances the biology of hearing rather than assails or supersedes it. Who would wish to do without antibiotics, skin grafts, or kidney dialysis? Several days ago, however, I listened to a prominent specialist in geriatrics describe his frustration over an elderly patient who had fallen and broken her hip. The woman—frail, ill, bedridden, alone—announced she was through with life. She wanted nothing done for her hip. Just give her medications to keep her comfortable, she insisted, and let her die in peace. Nothing in her manner or medical history indicated that she was unable to make a rational choice. What happened? The doctor sighed as several nurses in the audience guessed the answer. Other specialists had intervened with a hip-replacement operation. Now she was back in surgery because two screws securing the artificial hip had come loose. The episode, a sadly familiar skirmish in what seems genuine warfare against the biology of old age, suggests how all of us, not just
the elderly and infirm, live in the grip of cultural forces unprece-
dented in the age of ear trumpets—cultural forces that now deci-
sively shape our fates.

This book explores the changing relationship between culture and
biology as they reconfigure our experience of illness. The argument
can be stated briefly. Illness has changed in the last fifty years, during
the transition from modern to postmodern times. We fall sick from
unheard-of ailments, we pass through undreamed-of treatments, we
die in unsettling new ways and places. Postmodern illness—my
term for our changed and still changing experience of human afflic-
tion—is as distinctive as the films, cars, computers, and space shut-
tles that help define the era following World War II. It takes shape
from specific historical convergences between biology and culture.
We must explore these complex relations between biology and cul-
ture if we hope to understand the contemporary experience of illness
and ultimately (as Nietzsche suggests) ourselves. In the process, we
may come to look somewhat differently upon the quest to live for-
ever.

The historical changes that have brought us to the present state are so
immense that they defy enumeration. Consider the year 1872. Nietz-
sche had just written *The Birth of Tragedy*. Remington and Sons, fa-
mous for the rifles that helped to win the American West, had begun
to work on a new technology: the typewriter. The Brooklyn Bridge
had just opened for traffic. Alexander Graham Bell was putting the
finishing touches on the telephone, and Viennese surgeon Theodor
Billroth (the founder of modern abdominal surgery) was about to re-
port his discovery of potentially infectious streptococci and staphylo-
occi. As the contemporary world struggled into being, a nine-year-
old boy named Black Elk lay seriously ill in his parents' tipi, his face
and arms swollen, his legs so weak he could not walk. For twelve
days he lay on his back, motionless, as if dead.

In this state of suspended life, some things were very clear to the
boy as he looked at the sky through the opening at the top of the tipi.
Two men were coming from the clouds, headfirst "like arrows slant-
ing down.” He had seen the men before, he knew, but this time they looked different: “Each now carried a long spear, and from the points of these a jagged lightning flashed. They came clear down to the ground this time and stood a little way off . . . and said: ‘Hurry! Come! Your Grandfathers are calling you!’” Black Elk describes how he followed the two men to a place where a small cloud lifted him off the ground and sped away. “And when I looked down,” he said, “I could see my mother and my father yonder, and I felt sorry to be leaving them.”

With the help of a Sioux medicine man named Whirlwind Chaser, Black Elk recovered from his twelve-day, near-death sickness. (As a boy, he would take a scalp at the last stand of General George Custer, and as a young man he performed before Queen Victoria with Buffalo Bill’s Wild West Show, on his return surviving the infamous massacre at Wounded Knee.) What he retained, once the illness had passed, was the magnificent and frightening vision imparted during his journey into the clouds. The vision, he claimed, gave him the power to cure, but he did not dwell upon his skills as a medicine man. “If a man or woman or child dies,” he said as an old man, now confined to a reservation, “it does not matter long, for the nation lives on. It was the nation that was dying, and the vision was for the nation; but I have done nothing with it.”

Black Elk’s frank self-condemnation puts a personal face on the larger tragedy that Native Americans faced in the legalized seizure or outright theft of their lands and in the systematic assault on their cultures. It is hard to imagine how anyone could have stopped the sweep of European immigration or blocked the advance of modern industrial society. Sioux legends had foretold such a conquest, but what Black Elk could not have foreseen was the simultaneous conquest of traditional medicine by a science-based biomedical model that effectively reduces illness to the operation of mechanical processes. Illness, inside this biomedical model, is pure biology, and Black Elk’s momentous visionary experience is no more than a feverish delusion. While the scientific biomedicine that accompanied the birth of the modern world would see in Black Elk’s traditional ceremonies and cures simply the practice of superstition, I offer a differ-
ent story—or the fragments of a story—about health and illness. In this story, although the power of the biomedical model continues almost unabated, we are feeling our way toward a new and still uncertain understanding of illness. This new understanding respects the wisdom in nonscientific traditions of healing, such as the one Black Elk inherited, and finds in our growing passion for alternative therapies an impulse to recover lost knowledge about health. Indirectly and even inadvertently, Black Elk shows us in his practice as a Sioux medicine man, even as a scientist does working on the latest vaccine, how illness is always constructed at the crossroads of biology and culture.

It is important to respect the continuing power of the biomedical model, which (in addition to being an entrenched institution) has a record of brilliant success, from the eradication of smallpox to heart-bypass surgery. It will be modified, perhaps drastically, but not soon rejected. We have learned its lessons too well. Unlike Black Elk, most people in the industrialized world have grown up in a culture dominated by the belief that illness comes from microbes, toxins, and internal malfunctions. We consult doctors who perform tests tracing our discomfort back to its source in a recognized pathology, objective and concrete. This is the perfection of twentieth-century medical science. Illness, however, is not strictly speaking an object. It is not something we can know inside and out, through an inventory of its material properties, like a moon rock. Even when caused by a toxin, by a microbe, or by the dysfunction of an organ, illness is a fluid process that changes as we change, enigmatic, insubordinate, subjective. It captures bodies, minds, and emotions, remains at its deepest level inaccessible to language, and alters under the influence of non-medical events from divorce to climate change. What biomedicine finds hard to recognize or to accept is that different observers—patient, spouse, doctor, pastor, insurance provider, hospital administrator, epidemiologist, to name a few—examining the same illness from their separate perspectives will observe different aspects of its truth.

This book traces a historically new way of understanding illness, one that has emerged during the last fifty years of the twentieth century. It calls into question various beliefs basic to the still reigning
biomedical model, reflecting an imperfect but widespread and growing recognition that illness depends not solely on biological mechanisms, no matter how crucial they are, but on convergences between biology and culture. Such convergences are ultimately irreducible to a mechanistic model. They signal the end of the machine age and perhaps the advent of systems theory as a dominant metaphor for illness. They define the specific and complex ways in which we in the postmodern era continue to reinvent ourselves as (in Nietzsche’s incisive phrase) “the sick animal.”

Every road taken implies roads not taken. Let me thus say clearly what this book is not. It is not meant as a contribution to theories of postmodernism. Illness, not postmodernism, is my subject. Recent theorists can show us how illness constitutes a “social text”: something at least partly created by the densely interwoven network of experiences and interpretations we bring to it. Illnesses, like texts, are amenable to various traditions of reading, both medical and nonmedical, so that a Native American shaman will interpret them differently than does a Western physician. Yet, illness is unique among social texts. It touches each of us, in our flesh, as we fall under the spell of internal events. Illness too is often thrust upon us, capable of interrupting every plan. It is a text we cannot put down or put off. One day it will likely kill us. So powerful is its hold that few contemporary maladies from racism to crime have not been described as an epidemic. It is a pool in which we behold the reflection of every evil. Illness, further, is never strictly a matter for theorists but always contains deeply practical imperatives: something must be done, often quickly and with imperfect knowledge. Anyone who longs for sustained theoretical analysis of postmodernism has a rich harvest to choose from elsewhere, which seems reason enough to sidestep the philosophical agendas and technical dialects common among theorists. My explanation for preferring a more concrete approach—I cannot write as a philosopher or theorist anyway—is very basic. Our health as individuals may depend directly on how we understand crucial, specific changes implicit in the experience of postmodern illness.
We can safely defer the question of just what the troublesome term *postmodern* means. It is notoriously vague. It took a flashy, breakneck run up the stock market of academe—peaking from, say, 1975 to 1985—and now appears to be in a modest decline, as conference organizers search for less overworked topics. Some scholars are beginning to reappraise their relation to postmodern thought, to put it at arm’s length, to criticize postmodernity both as an intellectual style (associated with ideas about the meaning of texts as inherently indeterminate) and as a social force (associated with a multiculturalism that threatens to undermine all nonlocal values). The result has been a gradual erosion of prestige for a concept that once inspired an almost unstoppable flow of articles, books, and symposia. My aim is, if possible, to extract *postmodern* from a context of academic fashion. It remains a term useful in identifying the relatively coherent period in the development of Westernized industrial nations that begins, roughly, at the end of World War II. Its vagueness in fact recommends *postmodern* as applied to a period of rapid transition when values and styles are losing their familiar shape. There is no term half so serviceable to replace it. Even its critics, even televangelists or conservative commentators impassioned in their defense of traditional virtues, stand within the stream they oppose, taking calls on their cell phones, eating in franchised restaurants owned by multinational corporations, raising kids who speak computerese. We are all, like it or not, postmodern.

This book shares something of a postmodern spirit in its disregard for claims to originality. It does not seek to be first in line or to write something never before written or thought. Its main purpose could be described as rethinking and extending the disorganized minority tradition that argues for the importance of cultural influences upon health and illness. Many readers will recognize the contributions of such distinguished figures in this tradition as René Dubos, George L. Engel, Oliver Sacks, Melvin Konner, Arthur Kleinman, and (preeminent) Michel Foucault. Some will know the work of equally important, if less celebrated, historians, sociologists, anthropologists, philosophers, and literary critics, who help to show how various bio-
logical states—from menopause to post-traumatic stress disorder—are shaped by historical and cultural forces. This minority tradition has even spun off a few popular television specials and coffee table books. The bulk of such work has appeared within the last fifty years, in the period, if not always in the spirit, known as postmodern. A few scholars have even begun to explore specific ways in which postmodernism as a style and postmodernity as a period affect the individual experience of illness. (The work of Zygmunt Bauman, Nicholas J. Fox, Arthur W. Frank, and Elaine Showalter is important here.) My aim is to provide a deployment rather than an archaeology of this recent minority tradition and to emphasize the proliferating connections between biology and culture. It is the emergent literature (growing more robust daily) on the connections between biology and culture that creates a context within which my arguments about postmodern illness stand as far more significant than were they simply the unprecedented thoughts of a solitary writer.

Haven't people always believed or hoped they could live forever? The answer is no. Even the pharaohs—stocking their tombs for the afterlife—had to face up to their own mortality. For centuries, the graveyards beside every parish church reminded the faithful that they, too, must die. The current assault upon biology expresses not a permanent disposition of human nature but an impulse with specific historical roots. In fact, postmodern thinking can rank among its most important accomplishments a rejection of Enlightenment arguments that human nature is always and everywhere the same, universal and absolute. Unfortunately, in exploding myths about universal human nature and about purportedly changeless essences such as justice or sexuality, postmodern thinkers have emphasized cultural differences at the cost of neglecting the equally strong evidence of biological sameness or consistency. They write as if we were beings wholly constructed by culture, rather than social creatures endowed by the long prehistoric processes of evolution with nervous systems, hormones, genes, and a biological heritage that we share not only with fellow humans but also (approaching within a whisker-thin
margin of complete overlap) with various chimps, apes, and other higher primates. Culture plays a crucial role in human affairs; but its power is far from total, and biology often combines with culture to produce colorful local variations in our behavior, from courtship rituals to eating disorders. In a rare condition called gourmand syndrome, researchers recently discovered that lesions of the front right cerebral hemisphere produce a compulsive preoccupation with gourmet food.\textsuperscript{8} Hunger, thirst, and sexual desire, no matter how elegantly we stylize their satisfaction, proceed from a level beyond culture.

We are beginning to discover the evolutionary implications in the concept that humans are social animals. This book aligns itself with the sometimes inaudible voices within postmodern thought that emphasize the intricate relations between our animal heritage and our social experience. One example must suffice. The much touted differences between women and men, as Deborah Blum shows, while shaped by cultural practices rooted in time-bound and place-bound ideologies of gender, also have biological underpinnings rooted in human evolution. Even mice, it turns out, manage to develop defenses against incest, based on a system of immune-system proteins that govern female mating patterns. (Mice also appear to possess a gene that facilitates social behavior.) The balance between biological and cultural sources of our sexual behavior is not static, Blum demonstrates, but in constant change.\textsuperscript{9} So, too, with illness. Historical differences in our experience cannot be fully understood apart from the biology of nerves, neurotransmitters, microbes, and genes that gives human affliction a degree of sameness across disparate times and cultures. The delicate balance between biology and culture, as it alters in a continuous flow, is what constitutes the elusive truth of illness.

Skeptics may contend that an exploration of convergences between biology and culture does not truly add to our knowledge of illness but simply rearranges it. Two brief responses are thus in order. First, knowledge often advances by strategic rearrangements. Science tends to prosper precisely because we set established facts in the context of sounder hypotheses or theories. Individual studies that may
have minor impact in isolation gain significant power when brought together with other studies that reinforce major changes in thinking. Second, established facts are altered—sometimes decisively—by the new context in which they are set. Lung cancer has for years remained securely enclosed within a biomedical discourse that relegates social practices to the status of "risk factors." Risk factors, in this way of thinking, do not "cause" a disease (at least not all the time) and so do not really belong to it: they are outliers on biology. Suppose, however, that we rearrange the facts slightly and move the cultural practice of smoking cigarettes toward the center of our thinking about lung cancer. The rearrangement, in turn, allows other established but neglected facts to snap into focus: facts about suppressed research into nicotine addiction, about advertising campaigns targeted at children, about government subsidies for tobacco. Suddenly the biology of lung cancer appears inseparable from the culture in which it occurs, with the result that serious improvements in public health are at least possible.

The importance of understanding such convergences between biology and culture cannot explain away every complication. This book does not offer the medical equivalent of a unified field theory, sweeping up every possible illness, past and future, into a single explanatory model. My claims are limited. Convergences between biology and culture help to clarify many illnesses, but not all. Some maladies are wholly genetic in origin, extremely rare, or so rapid and deadly in their onset that the influence of culture barely registers. Further, for millions of years disease worked its way through the animal kingdom before the arrival of humans and their cultural activities. The current status of disease in animals of course illustrates how hard it is to escape the grip of culture: pets and livestock are prey to diseases that come with domestication, while wild animals also suffer ailments related to human activities, like the endangered Florida panthers whose malformed hearts result from the inbreeding of populations severely depleted as we destroy their habitat. Still, convergences between biology and culture, no matter how extensive, do not constitute a master key to all illness. A master key would eliminate
the need for further inquiry, as one answer fits every question. What this book offers instead is the exploration of an unfamiliar and still unfolding way of thought.

The way of thinking about illness explored here, in its rejection of a single theory or model that will explain every illness, shares at least one feature with much postmodern analysis. Postmodernism has generated a distrust of the comprehensive explanations that French theorist Jean-François Lyotard calls “grand narratives”—vast encompassing megabodies such as Christianity and Marxism that reduce other stories and historical details to mere satellites within their all-encompassing gravitational field. “The grand narrative,” writes Lyotard in _The Postmodern Condition: A Report on Knowledge_ (1979), “has lost its credibility.” From a postmodern perspective, the long-dominant biomedical model provides one such comprehensive and dubious grand narrative: a theory that reduces every illness to a biological mechanism of cause and effect. By contrast, my argument—that postmodern illness is defined by an awareness of the elaborate interconnections between biology and culture—does not aspire to the stature of a grand narrative. It does not seek to explain every affliction on the planet, but rather to describe a new, transitional, and unfinished understanding of illness that typifies numerous industrial societies during the second half of the twentieth century. Whatever power this understanding may possess, a postmodern model of illness will no doubt (such is the inner logic of postmodernism) need to be supplemented by other compatible and similarly limited models.

The main point here—setting aside the questions about the value of grand narratives—is that we can best grasp what makes postmodern illness distinctive if we examine various specific instances (in all their irreducibly rich, local details) where biology and culture converge.

No single study can fully address a topic that is as immense as postmodern culture and as sprawling as postmodern illness. This book, by virtue of its subject, cannot fail to be incomplete. Its gaps are required or at least inevitable features—although all authors have blind spots. Where completeness is impossible, moreover, an empha-
sis on one illness inevitably slights another. Inclusion or omission here does not signify relative importance; it is not as if illnesses competed for space to reflect which is more serious or weighty. Is AIDS more serious than breast cancer? Is Tourette syndrome less weighty than asthma? My purpose is not to rank incommensurate forms of suffering but to tell a highly selective, nonlinear story about the distinctive qualities of postmodern illness. It is, ultimately, a story about a transition from the biomedical model that has served us well for over a century to a new, incomplete, unnamed model that I am calling biocultural.\textsuperscript{12}

The incompleteness implicit in this inquiry into the development of a biocultural model at least acknowledges the open-endedness of this period in which experiences of illness continue to change. The end of postmodern illness, I believe, will not arrive until the human genome project and biotechnology (both in early stages) have advanced far enough to offer a radically altered vision and a vast new array of effective treatments. The old distinction between genetic disease and nongenetic disease, for example, is breaking down as researchers show a genetic component in most diseases.\textsuperscript{13} (We recently learned that a form of the gene known as apolipoprotein E may predispose boxers to develop chronic traumatic brain injury and that another gene, when defective, causes a hereditary form of Parkinson’s disease.)\textsuperscript{14} The world will see momentous change when genetic engineering permits us not only to transplant healthy genes into a person who is ill but also to prevent illnesses by altering the genetic makeup of human embryos. At this future point, genetic medicine will have actively redesigned—not merely influenced or redirected—the biology of illness. This post-postmodern world will face presently unknown diseases—some doubtless introduced by the widespread use of DNA technologies to create genetically modified microorganisms, like the synthetic bacteria engineered to clean up oil spills at sea. Such far-reaching manipulations will ultimately rewrite both illness and culture. Meanwhile, it will take many voices to tell the ongoing story of postmodern illness. I prefer to think of my voice as aspiring
to the virtues of a prologue—or maybe an extended introductory essay—rather than providing a definitive scholarly exposition.

One major omission—from the perspective of medicine in the United States—is an account of the recent transition to a system of so-called managed care. The huge health maintenance organizations (HMOs) that have sprung up to negotiate contracts with hospitals and doctors (and often to set the terms of treatment) reflect far more than a change in medical economics. Many doctors feel their decision-making autonomy threatened as choices about proper medical treatment end up on the desks of cost-conscious bureaucrats. Many patients feel their health undermined and their trust in doctors eroded as HMOs decide—in some cases, wrongly or illegally—to withhold access to care. In the United States today, an illness does not count as an illness unless an HMO will certify it. (So much for biology alone.) The danger in an account that focuses on managed care is that we will lose sight of larger interrelations between illness and culture. The United States, as Robert H. Blank points out, is the only Western industrialized nation that fails to guarantee universal health care. “The core problems of American health care,” he contends, “are not solely economic or even political but instead emerge from a set of uniquely American illusions about health, health care, and the role of government.” Managed care represents a unique subplot that contributes to the confusion and powerlessness that frustrate many American doctors and patients today, but its significance lies within the larger and inherently international narrative of convergences between biology and culture. Managed care, as a national problem resolvable by legislation, remains less important to a knowledge of postmodern illness than the unresolved cultural illusions about health (illusions by no means unique to the United States) that stand behind it. Although the illustrations and data in this book come primarily from the United States, which is the culture I know best, a similar study of postmodern illness—adjusted for local differences—could be written in almost any industrial nation. Americans, with or without HMOs, are not alone in their fantasies of living forever.
Narratives of unfinished change are often unwelcome. Already preoccupied with crowded waiting rooms and the daily proliferating biomedical literature, as well as with threats to their income and autonomy, many doctors would prefer not to think about a new vision of illness. The biomedical model works pretty well, much of the time. Do we really need an account of illness that requires us to confront immense and perhaps irremediable problems of culture and public health? Patients as well as doctors remain deeply attached to a biomedical model that has helped to prolong life expectancy, to eradicate lethal diseases, and to develop effective plans of treatment for once debilitating illnesses. Many people take comfort in thinking about the body as a machine that requires merely an occasional trip to the repair shop: the analogy allows us to postpone troublesome questions about illness because we assume that the medical profession will know exactly what to do when an emergency arises. This is a good assumption.

The intensive care unit, the burn unit, and the emergency room save numerous lives that just a few years ago would have been inescapably destroyed. Almost all patients who need such care are awed by the medical skill and cutting-edge technology that permit their survival, and nothing in this book should be interpreted as a contribution to the popular pastime of doctor bashing. A few criminals with medical degrees are among the people responsible for billions of dollars lost annually to Medicare and Medicaid fraud in the United States, but the health care profession (although occasionally dishonored) has a remarkable record of helping us get through crises that otherwise would be insurmountable. The problem lies less with individual doctors than with the biomedical model that still controls a great deal of medical education and clinical practice. Significantly, the assumptions that underlie the biomedical model work best for patients whose lives are in jeopardy from a clear organic cause where surgical interventions or drugs provide an effective response. Medicine today, however, must also deal with illnesses that last for decades. It must treat patients with difficult chronic conditions such as alcoholism, arthritis, diabetes, hypertension, heart disease, and
nonmalignant pain, to name just a few common maladies. It must address the needs of a swiftly aging population whose complicated illnesses cannot be reduced to a short-term emergency or to a curable malfunction.

Here, beyond the emergency room and intensive care unit, as doctors respond to the changing world that medicine has helped to create, the biomedical model and the mechanistic thinking behind it run up against nearly fatal limitations. Worse, in ignoring these limitations, medicine at times pursues its own research agenda and economic interests at the patient's expense. When patients do not openly opt for alternative healers or for non-Western systems of care, from Chinese acupuncture to the ancient medicine from India known as Ayurveda, they often prove the staunchest defenders of the same mechanistic biomedicine in which the pursuit of cure reinforces an illusion that our lives can be indefinitely extended by means of continuous high-tech repairs. In effect, patients and doctors collude in this fiction. "A strong presumption throughout my medical education," writes physician Ira Byock of the period extending into the 1980s, "was that all seriously ill people required vigorous life-prolonging treatment, including those who were expected to die, even patients with advanced chronic illness such as widespread cancer, end-stage congestive heart failure, and kidney or liver failure. It even extended to patients who saw death as a relief from the suffering caused by their illness."\(^{17}\) Death is a scandal in postmodern times partly because it unmask the illusion that we can live forever.

A good index to the character and limitations of biomedicine is what happens when the hope of cure is gone. When all their vigorous invasive procedures prove futile, when the patient can no longer sustain either the curative assault of medicine or the punishment of illness, the cardiologist and the nephrologist and the other specialists are suddenly and curiously absent—not even a courtesy visit is paid—or at least such was my experience during one especially difficult episode. Well-known surgeon and author Sherwin B. Nuland, who teaches the history of medicine at Yale University, sees something similar in today's high-tech biomedicine. "The diagnosis of dis-
ease and the quest for overcoming it with his intellect,” he writes, “are the challenges that motivate every specialist who is any good at what he does. He is fascinated with pathology. When faced by the certainty of his own impotence to treat it, the would-be healer too often turns away. If a riddle is by its nature insoluble, it cannot long hold the interest of any but a tiny fraction of the doctors who treat specific organ systems and disease categories.”¹⁸ This is not good news for patients, who may feel disinclined to have their illness reduced to a riddle on which the male intellect (note Nuland’s telltale masculine pronouns) can exorcise its fears of impotence. The one stalwart health care figure, almost invariably female, who does stay and care until the end while the highly paid professionals often turn away, not surprisingly occupies the lowest status and earns the most meager income in the entire hierarchy of medical expertise: the nurse’s aide.¹⁹

The dying patient, if not wholly abandoned by medical experts, is often left the casualty of a mechanistic dream of cure so tattered and threadbare that it cannot allay fears of a painful, humiliating death in the grip of the same life-extending technology that is a trademark of postmodern medicine. Our anxieties about death have shifted from the fact of dying to the methods that medicine will use to keep us alive. “Don’t let me die on a machine,” patients now whisper to their physicians or assert in advance directives. The widespread call for physician-assisted suicide is not simply the result of documented medical failures in pain management, failures that come despite an abundance of powerful opioids that guarantee almost no patient should die in pain. It is a logical extension of the biomedical model. When the biomedical “continuous repair” job inevitably fails, many people reasonably (but incorrectly) suppose that doctors have nothing left to offer except one last drug or high-tech mechanism that will quickly and painlessly dispatch us.

The public taste for quick fixes through drugs and surgery, as deeply rooted as the taste for fast food and the fifteen-minute oil change, helps keep the biomedical model in business at a time when a num-