EMBRACING THE FUTURE

MEETING THE CHALLENGE OF OUR CHANGING WORLD

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EMBRACING THE FUTURE

PREFACE

> The reasonable man adapts himself to the world; the unreasonable one persists in trying to adapt the world to himself. Therefore all progress depends on the unreasonable man.
>
> —George Bernard Shaw, *Man and Superman*

The only thing harder than getting people to accept a new idea is persuading them to abandon an old one. Yet we must open our minds to new ideas if we are to improve our own lives and the lives of those who follow us. One idea that has become almost universally entrenched in the minds of both young and old is that the prime symbol of success is making money—the more, the better. Such an attitude can lead to a short-sighted, shallow view of life. For example, two statements routinely presented to college freshmen in the United States by a Higher Education Research Institute survey and the percentage of students agreeing with them are:

1. *It is essential or very important to be well-off financially.* In 1966, 44 percent of the respondents agreed; by 1986 the proportion had risen to 71 percent.
2. *It is essential or very important to develop a meaningful philosophy of life.* In 1966, 83 percent agreed; by 1986 only 43 percent agreed.

These facts reflect a profound change in the value system of our society. In the past, people looked for basic explanations of life and tried to formulate principles on which to build a better world. Today, the younger generation seems preoccupied with learning how to succeed in a world presented to them primarily through pictures on television. The young pose many questions on how to get a high-paying job, but show meager interest in broader issues, such as the eternal struggle of good versus evil. Ques-

tioning little that they see or hear, they fail to develop their imaginations or to engage in thought-provoking dialogue with others.

This book challenges the imagination and raises questions and issues in a way that may be contrary to the spirit of the present young generation. It is written from what we hope is a mature adult viewpoint. Each stage of life—childhood, early adulthood, and mature adulthood—is focused on different concerns. In childhood, our only concern is with play. In early adulthood, our concern is to make our own way; obtaining success, comfort, security, and status is foremost on our minds. In mature adulthood, we begin to interpret our experiences by reviewing the past and looking ahead. We try to pass on what we have learned by teaching others. And we attempt to gain perspective about our own place in the scheme of things.

These latter concerns underlie this book, which aims to help readers gain perspective on the real challenges of life. We do not claim to have the one best answer to the question: What is the meaning of life? But we can offer some thoughts on meeting the challenges of the future by drawing on the works of many who preceded us. We offer no specific prognostications, such as how much richer or poorer different parts of the world will be, who will win the next race for the White House, or what the next technological revolution is likely to entail. Rather, we concentrate on general expectations. The future, like the past, holds both good and bad in store for us, but time will go on.

What concerns us here is how to embrace the future. What assets does each individual bring to the task of forging the future? How can we develop the ability to accommodate change, to solve problems, and to grow as individuals and as a society? Is it possible to transform the world to our liking, to get along with one another, and to maintain a joie de vivre?

In this book we consider the challenges of the future and our innate potential to deal with them. We offer suggestions on how to orient our thinking and behavior to make the most of the future and of ourselves. Our objective is to increase awareness that, in our complex and rapidly changing world, the actions we take and decisions we make today will affect not only ourselves but future generations.

The future will be neither as rosy nor as dismal as some writers predict. What we can expect is that solutions to our current problems will result in a better world, but new problems will arise that will prevent us from ever being completely satisfied. We are optimistic enough to believe that those

who remain open to new ideas can grow into the future, can adapt to it, and can to some extent shape it.

It has been said that Greatness is a conspiracy, Genius is an accident, Wisdom is an achievement, but Survival is a conundrum. It is with this conundrum that we intend to involve the reader.

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THE SHOCK

The "good old times"—all times when old are good—are gone.
—George Byron, *The Age of Bronze*

Four starving creatures—an ant, an elephant, a chicken, and a man—come to a very high, solid wooden wall that is a thousand miles long in either direction. They all know that their survival depends on getting to the other side of the wall. The barrier is regarded differently by each of them. The ant goes right on, climbing the wall as if it were the usual thing. The elephant tries to ram it down. The chicken makes many frustrated attempts to scale it, but cannot fly high enough. The man can do several things. He can try to scale it with pitons and rope, or he may burrow under it or try to saw a hole in it, or burn it down, or wait for the elephant to crash through it. He can blow it up or get some termites to chew it down. He is guided by his intelligence, creativity, imagination, and control of and coordination with nature. The animals try to do more or less what they are used to doing instinctively, and their chances for survival are haphazard.

Our minds resonate with the ebb and flow of feeling about the experiences we have. We view the days that lie ahead with expectations of change, of surprise, of fulfillment, and even of some magic that fires the mind to keep us excited. For those with a zest for living, the stimulation of a promising future energizes our interest. We anticipate the next instant awaiting new fulfillment with the avid and silent expectation of children on Christmas Eve.

Why do we not get bored with this today-tomorrow cycle that is sometimes soothing, sometimes painful and irritating, but always beckoning our nature with subconscious curiosity, arousing a constant thrill to go on to the next moment and the next one and the next and the next?

There are many reasons to explain why we are the way we are, and why we like to arrange the world as we do. Sometimes we welcome monotony

so we can bear life's wicked turns or just appreciate the present a little better. At other times we purposely intensify our stimulation to vary the cycle of action and response, risking heightened excitement to see what better things we may uncover.

In the end, as with any machine, even adaptive ones like our bodies and minds, our equipment ages, fatigues, and fails. But this takes some time to happen, some period that is finite in length but infinite in possibilities. How can we use our gifts to establish a starting point at the end of a long history of human experience, push that history in directions of our own choosing for our lifetime, then pass it on to our children to make their lives more exciting? That is the riddle that we try to explore in big clusters in this book.

To many people the future looks bleak. A seemingly uncontrolled birthrate portends widespread starvation, homelessness, and unemployment. Technological developments threaten the environment. Conflicts flare up continuously, and the proliferation of nuclear weapons makes it seem inevitable that they will be used by one superpower against another or fall into the hands of terrorists to become instruments of blackmail. Devastating famines and diseases appear to be spreading to the four corners of the earth.

At no time in history have we been plagued with such intertwined and formidable problems. Neither singly nor as a group do they promise easy solution. The food problem, for example, cannot be remedied unless the population explosion is brought under control. The optimists among us believe that any problem can be solved through the use of money, science, and politics because their applications have led to successful solutions of past problems. But thoughtful people see limits on the efficacy of these tools.

The forces of change are moving faster than our ability to maintain the order needed both to reap the advantages of change and to keep it under control. As we commit ourselves more intensely to change, we will need to recognize and sustain the sources of order in our lives. To succeed, the new must be integrated with what we cherish from the past. As the frequently used warning goes, those who ignore the lessons of history are destined to repeat past mistakes. Those who do well at considering the future ground their thinking in humankind's long history, interspersed with glorious accomplishments and near-fatal errors. Conscious efforts at synthesis of old with new should become a part of the stream of change.

The United States, a nation whose outlook developed from an enlightened religious tradition, from hard work applied in a rich environ-

ment, and from creativity stimulated by freedom of opportunity and enterprise, is finding that its leadership in the world is threatened by serious economic problems. Production and economic distribution have shifted to the Far East—to Japan, Korea, and Taiwan and soon very possibly to China. In Europe, a gigantic economic coalition in the West has the potential to extend to the Eastern bloc, creating an opportunity for economic realignment and a reshaping of the world order. It is fruitless to think about the future without considering global matters.

In the past people believed that when they could not manage a situation through their intelligence and cooperation, time eventually took care of their problems, for better or for worse; but the effect of the worse was localized. Today any of the problems cited above has a global impact and immediate consequences. Solutions cannot be trusted to take shape over time without becoming chaotic. In fact, the lapse of time itself can make matters worse.

Besides these political and economic threats, rapid change can cause psychological trauma. With events near and far brought to our attention by round-the-clock news, how do we keep our sanity? Many feel that we are nearing the end of the world, that the apocalyptic prophecies of the Bible will soon begin to find their fulfillment among us. Even though much remains to be done, history this time may take a shortcut and end it all. How many undetected civilizations have gone to their extinction without enjoying the fruits of their knowledge? We too seem about to be aborted from an expected and well-deserved prosperity.

But are our problems so exceptional that they cannot be overcome? Have human survival, the quality of life, the morality of the spirit, and our ability and determination to cope really degenerated to a state of hopelessness? Are we getting worse or better at controlling our affairs on this fragile planet? Can we measure this change? Let us see.

Sensationalists have found our weakness. They capture our attention by bombarding us with constant reminders of the dire consequences of living in the current age. But what actions can we take to adapt to and manage our future? Should we see a psychiatrist, read self-improvement books, become part of a two-income family, comb the beaches of a Polynesian island, join a religious army to fight a holy war, or simply learn to budget the information to which we expose ourselves?

We need not panic. There are ways to maintain perspective and to deal with the inevitable surprises and shocks of the future. We all have the biological and cultural tools we need to ensure success, but we must learn how to use them. We can orient our thinking to live in the onrushing future, with its apparent chaos and disorder. We also have a responsibility to shape

the kind of future we desire. We need to participate in the human drama as it unfolds in the arena of change.

The future arrives much faster than it used to. A child born 2,000 years ago left the same world he entered, not expecting it to be much different for his children or for their children. A child born 200 years ago witnessed a few significant changes in his world. The push to change and improve had quickened, and the effects of change on future generations could only be guessed. But a child born twenty years ago will experience more change than all previous generations combined. The world of his grandparents appears limited and intolerable, and the world of his grandchildren seems unimaginable. Modern generations float in an isolation resulting from the inability to relate to predecessors or successors. Science has added to the complexity and continuity of life. Indeed, why even consider an end to our lives? In the next few years we may be capable of cloning, transplanting, or robotizing ourselves into immortality!

With the maniacal onslaught of more new ideas, inventions, and happenings, we need a perspective that will give us a lifeline in this torrent of change. History is our best teacher. What we know about the past can help guide us into the future. Ignoring lessons hard earned will only result in the repetition of mistakes. But we need more than a knowledge of the past, we need to fortify ourselves with an attitude that is open to change. By developing an Olympian sense of timing and balance, we can stay alert for the next solid footing, until adaptation becomes a facile talent.

How do we obtain this enviable adaptability? What are the problems? What are our tools? What preparation do we need to step gracefully into and embrace the future? Is it a matter of obtaining more knowledge, more money, more leisure, more peaceful ways of dealing with each other, more technology, or less of all these things?

To bring the future into focus, we must examine the techniques used to predict it, and we must discover what problems and promises to expect. This search may also lead us to realize what we must do to control problems and to benefit from their solutions. We must look at the supporting pillar of the future: change. As change occurs faster and more frequently it is helpful to know what it does to us, to recognize different types of change, and to prepare ourselves to face it effectively.

To help us survive pervasive change and to make life not only bearable but enjoyable, society has created basic systems of order through concepts of ethics, religion, law, art, and aesthetics. These concepts have developed over time, and their continuing evolution will influence our future success and well-being.

The powerful, dominating forces of science and technology help us to understand and control nature, to learn more about ourselves and our relation to the world. These forces also bring about social diversity and add to the complexity of change.

The brain is our instrument for learning, developing, and changing. It carries us up and down through cycles of thought and feeling. Our brain limits us, and we limit it. After all, only within our brains does the future exist. It can be a magnificently constructive tool or a horrifyingly destructive one. The brain is the organ that permits us to synthesize past, present, and future; therefore it is important to understand how it affects the ways we see and do things.

Finally, we possess certain assets that ensure future success: creativity, imagination, and a sense of humor. The more we appreciate and develop these gifts, the better prepared we will be to embrace the future as creators, as problem solvers, and as conflict managers. These assets help us gain greater satisfaction from our efforts and perpetuate our ability to live happily and well.

A SYSTEM VIEW

The world is a system with a history. It has many parts that interact with one another, and each has respected, established traditions. Interdependence, however, creates limitations. If we learn to appreciate the world's complex interactions, we can minimize the frustrations that result when our personal preferences are blocked and we confront apparent disorder. When we look at the future, our point of view tends to polarize. Sometimes we are inspired to realize dreams lived out in a perfect tomorrow. At other times we can see only nuclear war and nuclear winter, holes in the ozone layer, deterioration of the environment, dwindling energy supplies, and the end of civilization. We may be convinced that things cannot get better because too many people are making too many demands on limited resources. But such cynicism lacks imagination and feeds the myth that things cannot improve.

Broad thinking demands that we examine many things when considering important issues; it leads us to a different set of expectations. The future contains much promise, some good, some inevitably bad, and we are challenged to exploit the bad in accomplishing the good. Control over the future depends on how well we meet this challenge.

In a world dominated by technology and scientific thinking, people tend to conclude that unless things work out neatly and cleanly, the systems

developed for doing things are not worthwhile. This is not so. In fact, all systems, even very good ones, are plagued with ambiguities, inefficiencies, and unexpected consequences.

For example, look at the great natural system that has produced life for millennia, the system of reproduction. How many tortoise eggs must be laid to guarantee that *one* tortoise will survive long enough in the wild to participate in the reproduction cycle? Approximately 2,000, laid by several hundred tortoises! The others do not make it. Yet the tortoise has been around for a long time and will probably be here eons longer than humans, the proponents of perfect systems. All natural systems lack accuracy and neatness. For humans, tens of millions of sperm compete to fertilize an egg so that one sperm *might* be successful. Consider the time and energy expended in failed attempts! What kind of system efficiency is that? Yet each of us is the result of a winning sperm. The laws of procreation do not improve their efficiency quickly.

Look at the great sources of power that science and technology have produced to make our lives easier—the engines that transport us, lift for us, and provide us with heat and light. How efficiently do these great engines convert their fuel into usable energy? Thirty to 40 percent, maximum. In addition, these machines pollute our air as a by-product of their operation and through misuse kill or injure those they were developed to serve. Yet engines are celebrated as examples of progress. We view them as successful systems and forget the agony and pain they bring. Obviously we tend to forget undesirable consequences when we are strongly biased in favor of certain outcomes.

No system, whether it is a machine, animal, or plant, can achieve a goal without some inefficiency or without creating some undesirable by-product that detracts from the accomplishment of its purpose. There are two kinds of inefficiencies. One is associated with the organization and function of the system, which we can do little about. For example, a system organized as an autocratic bureaucracy suffers the inefficiency of delays in decisions because everything must be checked with the boss. The second inefficiency, the "anonymous screwup," can be attributed to both behavioral and random causes: oversights, strikes, work overloads, computer malfunctions, and so on. The undesirable but inevitable by-products of systems are termed "residuals." One word comes to mind and seems to be indispensable for understanding systems: their "crappiness." This earthy term represents the natural state of all input-output systems that produce both good results and undesirable by-products. Even in paradise, systems would have undesirable residuals were they to obey natural law.

Every system accomplishes its work but produces some residuals. If they are ignored, they gradually take over and inundate the system. The challenge is to recognize the residuals and to judge whether they do more harm than the system's output is worth. The trick is to use residuals as input to other systems that can produce something worthwhile. Thus not all residuals are bad. Cow residual is good fertilizer and can be used to generate methane, but it can also offend our sense of smell. There is always trade-off and compromise.

Knowing what residuals there are and how to use them to advantage or dispose of them is a key to the future. As new and bigger systems are developed faster, we need to recognize the inevitable creation of more and more residuals. Success will be achieved by living with the advantages that new systems bring without being overwhelmed by their "crappiness."

CHANGING VALUES AND SOCIAL ORDER

The future is influenced by decisions made today. Therefore a significant question is, What do we *want* the future to be? To answer, we must examine our basic values. Personal and societal beliefs, standards, and perspectives guide us through the many decisions that will bring about a certain set of future conditions. This can lead to difficult problems because different people use different measures to assess the value of their lives and accomplishments. These measures have a wide range, from good deeds and earning a place in the hereafter; to power, money, fame, adventure, being number one; to toughness; to the number of children, friends, wives, countries visited, houses owned, meals at French restaurants; to books read, degrees held, inventions and discoveries made; and so on.

The psychologist Abraham Maslow has proposed a universal hierarchy that ranks general categories of human needs. The most basic are first-level needs: food, shelter, and sex. If these are not satisfied, we seek to gratify them with a persistence that shapes our behavior; that is, all our behavior will be directed toward attaining the satisfaction of these needs. After first-level needs are met, we are liberated to pursue second-level needs for security and safety; the third-level needs for social belongingness or love; the fourth-level need for self-esteem; and finally the highest-level need for self-actualization or developing to our fullest potential.

Maslow's ideas are relevant to alternative world futures in at least two different respects. First, they provide some explanation for the approaches taken by developing nations. The overwhelming emphasis on growth by

such countries, even at the expense of ruining their environment or depleting their natural resources, can be interpreted as a national policy to satisfy the first-level physiological needs of their citizens. They have to attain what they need to survive today. The problems this struggle to survive creates for tomorrow are of little concern.

Second, though less obvious, Maslow's hierarchy may provide a value basis for making choices. Affluent people and countries, those that have satisfied first- and second-level needs, direct their attention to relationships with others and the attainment of self-esteem and self-actualization. On the other hand, the have-nots may become fixated at the physiological level, seeking ever more economic growth. Thus our highest priority in studying the future is to answer the question, Whose future are we concerned about—our own, our family's, our country's, less-developed countries', the world's? Beyond the choices raised by that issue are more difficult questions. Who has the right to lay claim to scarce resources? For whose benefit should they be employed? Whose interests should be given preference and on what basis?

And what of the general social order? Will the future bring stability to our relationships—nation to nation, race to race, neighbor to neighbor—or will we continue to fragment ourselves, producing destabilization and potential anarchy? The growing wave of violent international terrorism is a trend the "haves" of the world least favor, but it is hard to think of immediate ways for the "have-nots" to affect some degree of change in *their* futures. The rich seem to find it easier to get richer, and the poor are growing in number and struggling to survive.

While international terrorism represents a dramatic example of a force capable of upsetting the social order and altering the future, what of much less dramatic but more prevalent sources of instability—not terrorism but plumberism, Wall Streetism, or lawyerism? Here we refer to people who erode small pieces of society's stability every day through the incompetent or self-serving conduct of their activities. Whether our collars are blue or white or our responsibilities involve the management of a multinational corporation or the raising of a single child, we control part of the future. Personal egotism, laziness, or greed can destroy a bit of the fabric that holds our complex society in place and can set the stage for a less-promising future.

We live in a complex world where, in a true sense, everything is connected. One action may alleviate a particular problem while exacerbating several others. The pursuit of self-interest by one party will very likely interfere with the interests of another. Consider the logical, neatly