

Chapter 4

What Will Our Actual Future Turn Out To Be?

For thousands of years, people have discussed the probable future of their civilization. In recent years, countless books, reports, films, and plays have pictured one sort of future or another, ranging from catastrophic to utopian. These diverse images, prophesies, visions, scenarios, and ideas are exciting, entertaining, mind-expanding, richly detailed, and useful.

What will our civilization's actual future turn out to be, though? Faced with such an overwhelming diversity of answers to this question, I have felt a strong intellectual need to develop some sort of simple comprehensive framework, a need to have some sort of conceptual handle on the diversity. By climbing to the top of a high mountain on a clear day, we can gain a 3600 panorama—a total view of the landscape, encompassing all of the possibilities.

Our first step is to choose one particular future year as an anchor point in order to make our discussion more concrete and specific. It seems to me that 40 years from now is the best choice. This number of years is not impossibly remote nor an impossibly long period upon which to reflect. Human life hundreds or thousands of years from now, by contrast, is difficult to contemplate meaningfully. At the other end of the scale, periods of five or ten years are very appropriate for much of our individual and organizational planning, but it is also very important for society to pay some attention to the 40-year perspective. Otherwise our civilization could make some very foolish mistakes.

We may balk at looking 40 years into the future because that is a longer span of time than most of us customarily adopt as our perspective. We must realize, though, that four decades is fairly brief when viewed within the total span of human culture and civilization, stretching hundreds of decades into the past and possibly thousands of decades into the future. Indeed, Daniel Bell (1967, pp. v-vi) defends five centuries as a sensible unit for certain purposes: “While it still may be startling to think of looking ahead five hundred years, one realizes that the great historians have always

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taken periods of several hundred years to identify and explain the major social processes which lay behind the course of civilization and empires.”

Three Types of Outcome

The state of human civilization 40 years from now could turn out to be clearly worse than today. It could turn out to be clearly better. Or it could be somewhere in between. In a nutshell, these are the three types of outcome that encompass all of the richly detailed possibilities. Let us look at each in turn.

The first type of future is highly negative. It would be so bleak and grim that a majority of historians and social analysts, if given a description of today and of civilization 40 years from today, would agree that the latter is clearly worse. This, indeed, serves as the definition of the first type of outcome. Comparing the two periods, would the majority of historians and social analysts around the world (living today or living 40 years from now) agree that the future is definitely worse than the present? Forty years from now, if the planet has been devastated by nuclear weapons or if law and order have completely broken down around the world, there would be little doubt that this outcome fits into the “highly negative” category. Even with outcomes that are less clearcut, however, we can still apply our criterion: would the majority agree that this outcome is definitely worse, compared to civilization 40 years earlier? Only a few potential outcomes would be borderline; for most, the answer would be a clear yes or no.

At the opposite extreme, the state of our civilization 40 years from now may be so much better than today that the majority of historians and social analysts would agree that it is definitely better. Vastly improved global governance or a new world spirit of cooperation, for instance, might produce such an outcome.

The third type of outcome covers all the richly detailed possibilities between the two extremes just discussed. Forty years from today, the well-being of our civilization would not have deteriorated nor improved so much that it clearly was worse or better than today. It would be roughly equal; we would have held our own, but only barely.

Various improvements may occur just fast enough to offset the aspects of our civilization and environment that deteriorate. Crime, population

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size, poverty, and the natural environment will probably be worse than now, for example, while knowledge, technology, travel, information systems, communications, regional governments, conflict resolution, education, and space exploration might be far advanced. Over the decades we may hold our own in the overall net balance of positive and negative, happiness and suffering, improvements and deterioration, helpfulness and cruelty, love and revenge, effectiveness and breakdown, functioning and disruption, peace and warfare.

Although our gains and losses may in fact roughly balance, complacency is a dangerous response to this possibility. Instead we should do our best to avoid or minimize the negative side of the equation, especially those factors that could turn out to be catastrophic.

Even if the future is approximately equal to today, it will also differ dramatically from today in many particular ways. Even our most imaginative forecasts, scenarios, and science fiction will probably fail to imagine many of the actual details of human life 40 years from now.

Virtually all possible outcomes fit into one of these three types, as do virtually all of today's diverse forecasts, scenarios, and images of the future. Apparently this simple typology is reasonably complete and comprehensive.

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Can We Compare Two Periods?

The three-category typology for classifying potential futures assumes that we can compare two periods in human history and decide whether general progress or improvement has occurred, whether deterioration has occurred, or whether the results are somewhere in between or generally mixed. Is this assumption correct?

Let us first look at the opposition. In all my reading, the most powerful attack against such an exercise was written by historian Warren Wagar (1972). When all the experiences, qualities, acts, desires, and happiness of all people alive at two different periods must be measured, he said, what hope can there be of answers acceptable to any science? “The apostles and opponents of doctrines of progress and retrogression do no more than guess on the basis of prejudice and intuition.... The science of progress, if it means anything at all, requires bookkeeping-but on such a colossal scale, and with so many arbitrary judgments of value, that only a god could perform the tasks demanded” (p. 351). If one tries to compare a *future* period to the present or past, the exercise becomes even more difficult. “Who can quote accurate odds? Bookmaking is no less hazardous than bookkeeping, when the destiny of all mankind is at stake” (p. 352).

Scholarly and scientific activity, then, cannot decide or prove whether one period (past, present, or future) is better or worse than another, says Wagar. He becomes surprisingly positive, though, when he switches to viewing comparison as a *human* activity instead of a scientific activity. As a human activity, comparing the past, present, and future is a profoundly important activity for all of us. Wagar states that “as scholars, we know that we do not know whether progress has occurred or will occur. But as human beings, each of us must...have some sense of the human prospect. We may please neither reason nor intellect by the judgments we make, but when we make none at all, we abandon our humanity” (pp. 352-253).

Warren Wagar then presents his own informed judgments about the progress made by human civilization over recent centuries. “We have progressed in knowledge of the world and ourselves, and in technical mastery of our environment. We have progressed in material wealth, personal comfort, security of life and limb, longevity, freedom from pain, and powers of perception, reasoning, and sensual enjoyment. We have progressed in individuation, self-awareness, and freedom of personal choice and thought. We have progressed in the richness and variety of our

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cultures, in the scope and sensitivity and quantity of our art, music, literature, philosophy, scholarship, and religion. We have progressed toward world unity and community. We have progressed in the ideals and practice of peace, nonviolence, and brotherhood beyond the family and the clan” (p. 353). In a personal communication (October 22, 1990) he reaffirmed his belief that humanity has made net gains since prehistoric times.

What Are Our Chances?

When each of us considers the possibility of a highly negative future for our civilization 40 years from now, we probably have in our mind some sort of holistic or intuitive estimate of the *likelihood* of this type of outcome. As we take into account everything that we know about the dangers, negative and positive forces, and potential breakthroughs and solutions, we have some sort of guess about probability. For some people, this guess will be fairly vague: “A highly negative outcome certainly could happen but it's not particularly likely” or “As I think of all the things that could go wrong, I figure our chances of avoiding a highly negative future aren't very good.” Other people will be a little more precise: “The chances of a highly negative future are somewhere around 50-50” or “about 1 in 3.”

My own guess is that the likelihood of a highly negative outcome 40 years from now is approximately 3 chances in 10. What this means conceptually is that if (in a thought experiment) there were 10 identical human civilizations in identical situations to ours, 3 of these would experience a definite deterioration in their well-being as events unfolded over the next 40 years. (If I look even farther ahead, to 100 years from now, I become a little more worried and I estimate chances of 4 in 10.)

I certainly do not claim any precision for my estimate of 3 out of 10, but I do find it a useful way to think about the likelihood of a highly negative future. Also, I do feel somewhat precise in the sense that I am sure that our chances are somewhere between 1 in 10 and 5 in 10, so 3 in 10 feels about right to me. Many people find this a useful way to discover the intuitive holistic estimate that is at the back of their mind; by thinking about the whole spectrum of odds they soon eliminate those that seem too high or too low, thus focusing on the narrower range that contains their estimate.

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Shifting our attention to a highly positive future 40 years from now, my best guess is that our chances are something like 1 in 10. (For 100 years from now, I might say 2 in 10; over the longer time span the chances of an extreme outcome increase.)

Simple arithmetic and my intuitive judgment agree on a likelihood of about 6 chances in 10 for the so-so, in between, approximately equal, “barely hold our own” future.

The Benefits of Estimating Our Chances

Estimating the likelihood of the three basic futures is a very useful and thought-provoking exercise. It forces us to face every factor that might significantly affect the outcome, and to consider seriously the entire range of literature and opinion on the future. It provides an excellent answer to our initial question: What will our actual future turn out to be? It clarifies the guesses that are already part of our thinking but half-hidden from awareness. It forces us to face three unpleasant facts: our chances are not superb, they may not be as good as they were 10 years ago, and despite our feelings of powerlessness and busyness we really ought to change our behavior radically. It can influence our basic strategy for contributing to the world: aim to reduce drastically the chances of a highly negative future, and perhaps also aim to improve our chances for a highly positive future. Dore (1984, p. 16) defends such an exercise by pointing out that such estimates “are not too far from the judgements which thoughtful and informed observers would make if they were forced to put figures to their intuitions.” He describes his figures as “primarily didactic in purpose.”

Estimating the likelihood of three basic outcomes also helps people avoid falling into the trap of assuming that some particular future is inevitable. A highly positive transformation is quite possible in the next four decades, but so is a highly negative catastrophe. We could present a convincing argument and plausible scenario for any one of the three types of outcomes. Powerful forces and historical examples support each of the three. Each of them is quite possible: none can be ruled out as wildly unlikely.

In this sense the rigid hard-core pessimist and optimist are both wrong. If they become fixated on one particular type of outcome and deny the possibility of the other two, they are simply blind to a large segment of

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reality. How would we react if a casino patron insisted that the next craps roll or roulette spin would be a seven and denied the possibility of any other outcome? How would we react if a consultant or chief executive officer insisted that a particular company would, with 100% certainty, increase its market share and staff size every year for the next five years? Michael Marien (1989, p. v) has discussed the rigid hard-core optimist and pessimist. "There is a widespread tendency to take the extremist positions of either Pollyanna or Cassandra. The pessimism of Cassandra is immobilizing, and keeps us from taking positive action. But the naive optimism of Pollyanna is even more widespread, and keeps us from facing our many problems. There are reasons for hope, and many good suggestions for positive action...but we need a tough-minded optimism if we are to make genuine progress".

It is important, then, to keep in mind the entire panorama of possible futures, from the worst to the best. A variety of outcomes is quite possible. Most books that have tried to look ahead many decades, however, have presented one particular future or one scenario, not a wide range of possibilities. Books that provide a breathtaking long-term perspective, at least 100 years, usually present one particular picture of the future; excellent examples are the books by Brown, Bonner, and Weir (1957), Beckwith (1967), Berry (1974), Kahn, Brown, and Martel (1976), O'Neill (1981), Stableford and Langford (1985), and Wagar (1989). Also, of course, science fiction and future fantasy literature almost always present a single story of future events. Probably the farthest vistas of all have been sketched by Olaf Stapledon's novels (1930 and 1937), although Darwin (1983) looked ahead one million years and Bacon (1959) one billion. Each of these books is certainly stimulating and useful in its own way, but none of them spells out a range of possible futures.

Incidentally, I am often asked how I arrive at my estimates. All I can say in reply is that I try to take into account everything that I have read, heard, and thought about the future (and about the present and about history). On the basis of that body of knowledge and ideas, what is my best guess for each of the three possibilities? Each estimate is holistic and intuitive, yet based on scholarly literature and the real world. Perhaps, though, I should give a different response when asked how I arrive at my estimates. Perhaps I should simply ask the questioner to make the three estimates. No one in any of the classes and groups that have done this exercise has ever raised a question about how individuals reach their estimates. If you pause to reflect on your own best guesses, you may immediately get an answer to the question of how people arrive at their

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estimates! When I have asked people in various groups in Canada and the United States to make their own individual estimates, their averages have not varied greatly from my estimates. A wider survey would be useful, though, for discovering more accurate averages plus the amount of variation from those averages around the world and over the years.

Futurists, forecasters, and planners make many statements and assumptions about possible futures. Unfortunately, they rarely estimate the likelihood of each of their major futures. Their thinking would often be improved if they did take some time to estimate these probabilities. This exercise would reduce any tendency to proclaim one particular future as virtually inevitable. Instead, one realizes that any of several potential futures has a reasonably good chance of occurring. This realization also helps to avoid complete pessimism or optimism, since such a wide variety of outcomes is possible.

Although futurists rarely include probabilities in their writing, estimating the likelihood of some future event is a fairly common activity throughout our society. We have become accustomed to weather forecasts that predict the chances of precipitation tomorrow as 60%. People take into account a wide range of nonmathematical factors when estimating the probability that a certain athletic team or racehorse will win. An insurance company may occasionally insure a risk that is so unusual that past statistics are not very useful. In the University of Toronto library, I estimate the chances of someone stealing the scarf that my daughter knitted for me if I leave it unattended. The hypothetical Encyclopaedia Galactica, a mind-stretching notion presented by Sagan (1980), estimates the probability of humanity surviving for another century as 40% whereas the probability of a more successful civilization surviving for one million years is 99%.

Pessimism or Optimism?

Is pessimism or optimism more appropriate when thinking about the future of human civilization over the next 40 years? Will we change fast enough and fundamentally enough? The future is not preordained nor predetermined. We are not on a single-track roller coaster with no chance to control our route and destination. The outcome is still open. We can influence it greatly, but will we?

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On the one hand, the pessimist is right. There is a good chance that the outcome will be terrible or at least very negative. There is a good chance that 40 years from now human civilization will not be flourishing nearly as well as it is today. As we saw in the previous chapter, the various forces and factors opposing a serious concern with humanity's future are pervasive, powerful, and deeply entrenched. Most futurists, forecasters, and global modelers agree that extraordinary changes in attitudes, values, beliefs, and behavior will be necessary in order for us to achieve a reasonably positive outcome 40 years from now. Continuing on our present path with a "business as usual" approach will very likely lead to a highly negative outcome. Our present rate of positive change is not enough to avoid catastrophes and a general deterioration in our civilization and our planet. We are continuing to choose some incredibly foolish and dangerous paths. Nuclear weapons are already poised to strike, we are consuming the planet's resources far too fast, and our population is far too large or soon will be. Crime, violence, terrorism, or warfare could become impossible to control. One or two highly totalitarian regimes might rule the entire world and repress freedom of thought and speech. Hopelessness, bitterness, and suspicion could overwhelm humanity. As Woody Allen once said (1975, p. 81), "Mankind faces a crossroads. One path leads to despair and utter hopelessness. The other, to total extinction."

On the other hand, the optimist is also right. There is still a good chance of holding our own and continuing to flourish. There is a good chance that our civilization 40 years from now will be equal to today overall—the gains and losses will roughly cancel each other out—or even better. None of the required changes and sacrifices are beyond our capacity. Already some citizens in many nations are informing themselves about environmental issues, unjust wars, nuclear weapons, and potential futures, and are in turn influencing their fellow citizens and their governments. Already the values, attitudes, and priorities of many people in many countries have changed in directions supportive of our long-term future (Elgin, 1981; Inglehart, 1990; Laszlo, 1978; Yankelovich, 1981). Historically, human civilization has been capable of dramatic shifts and rapid changes (Calder, 1983). Several countries around the world have recently demonstrated the speed with which massive positive changes can be achieved. More and more business and political leaders are paying serious attention to the environment and to other long-term world problems. We can all encourage and support the sorts of thinking and caring outlined in chapter 2 and also strive to counteract the forces listed in chapter 3. Certainly the future is not necessarily bleak.

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Many potential futures are open to us. It is possible that our civilization 40 years from now will have disappeared or regressed. Today's pessimists may be right. It is also possible that today's most optimistic views are right: we might achieve a very positive civilization within 40 years, coping and flourishing at advanced levels far beyond our own. Almost everyone would agree that it is also possible that the outcome will fall somewhere between these two extremes.

My best guess is that the chances of a highly negative outcome over the next four decades is about 3 in 10. Is this estimate pessimistic or optimistic?

This question reminds me of two sayings. The optimist sees the doughnut and the pessimist sees the hole. The optimist sees the glass as half full and the pessimist sees it as half empty. Similarly, a hiker can feel pleased with the three miles already covered or discouraged by the five miles that lie ahead. When feeling optimistic, feminists see the widespread progress they have made in changing awareness and behavior in the last 20 years; when discouraged, they see how much additional change is still needed.

In short, two people can react to the same reality in remarkably different ways. My estimate can correctly be seen as very discouraging and gloomy. It points up how foolish and risky our present paths are, and how difficult it will be to change them even if we do try. Alternatively, one can react to the odds of 3 in 10 by saying, "Good news! Our chances of avoiding a highly negative future, such as massive deterioration or a nuclear holocaust, are about 7 in 10. Those are excellent odds! I feel encouraged and empowered."

My estimate is more optimistic than those of certain other writers about the future. Sagan (1980) suggested that the probability of human extinction (quite apart from all the other negative possibilities) in the next 100 years might be 60%. Dore (1984) estimated the probability of a major nuclear war within 100 years as almost 40%.

Our chances of a highly positive future are perhaps something like 1 in 10. This estimate is a little discouraging at first glance: it means that a highly negative future is three times as likely as one that is highly positive. The optimistic side is that 1 chance in 10 still gives us a good shot at success. Trying for this outcome is definitely worth the effort, since the

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odds are not hopelessly stacked against us. One chance in 100, by contrast, might reduce our hope, enthusiasm, and effort rather drastically.

Doubt and Empowerment

When our children and grandchildren reach our present age, will human civilization be dramatically better or worse off than now, or approximately equal? Earlier in this chapter we saw that no one can be sure of the answer. Given this doubt about the future, is it best to be pessimistic or optimistic?

My suggestion is this: if in doubt, adopt a cautiously optimistic attitude, similar to the “tough-minded optimism” proposed by Michael Marien. Face fully the deep-seated problems of the world, but also retain plenty of hope, energy, and enthusiasm. Let us say to ourselves that we have a reasonably good chance of a satisfactory future if we devote enough effort and intelligence to it. This approach is more empowering and energizing than the completely pessimistic approach. There is no point in being permanently gloomy, discouraged, and paralyzed by the possibility of a disastrous future. Yes, odds of 3 in 10 are certainly worrisome, to say nothing of foolish, risky, and insane. Occasional feelings of horror, fright, and revulsion at what might happen are appropriate and can even galvanize us into action. At the same time, it is important to keep in mind the excellent chances of avoiding such a future. Those chances are something like 7 in 10, definitely not hopeless odds.

It is important to retain a strong sense of regenerative hope that human civilization will continue to flourish. Lifton (1987, p. 7) has emphasized that “Armageddonist tendencies can quickly diminish if there are alternative images of hope and of human continuity. Clearly this is a time to explore and cultivate love for our world and hope for its future.”

The most useful approach, then, is to focus on our *potential* for avoiding the worst and achieving the best. Although the outcome is in doubt, perhaps we function best that way. Great challenges and dangers may elicit the best creative efforts in individuals and civilizations. Many forces and factors will combine to produce the actual future: each of us can help to deflect the negative forces and can add our weight to the positive forces.

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Even if the odds against us were much worse, earnest efforts to achieve a reasonably positive future would still be the most appropriate response. Deep-seated cynicism and pessimism can produce the negative outcomes that they anticipate. Giving up all hope, optimism, and effort is one sure way to lower our chances of success. If no one tries at all, the likelihood of success will approach zero.

External Influences

The entire spectrum of factors and forces, from the worst to the best, have to be taken into account when estimating the likelihood of the three types of outcomes. So far, we have considered only factors within human civilization or on our own planet. In actual fact, though, our future could conceivably be influenced by something beyond ourselves and our planet.

Three potential influences, external to human civilization, have not been taken into account in my estimates. These three are an asteroid collision, God, and an advanced civilization from some other part of our galaxy. Let us spend a moment looking at each of the three.

One possible external influence is a natural event that would enormously affect human civilization. The most likely example is a collision with a massive asteroid or comet, large enough to eliminate most mammal species on our planet. Such an event has occurred in the past and could well occur again. Another event that has occurred repeatedly in the past is a magnetic pole shift. Despite their potential magnitude, none of these events has been taken into account in this chapter because of their low probability during the next 40 years.

A second potential external influence is an aware, wise, all-knowing, divine being with powers beyond the natural. A very large number of people have faith in the existence and goodness of such a being, often called God, although their conceptions of the nature and behavior of this being vary greatly. Can we expect God to intervene in human history during the next 40 years? Some people find no compelling reason or evidence to believe that God will do so. Other people see signs that God will intervene fairly soon with an apocalyptic cataclysm that will cleanse the planet of the evil portion of humanity. Other people expect God to intervene in a compassionate way to save everyone from a nuclear holocaust or other worldwide catastrophe; they believe that the universe cares for human civilization and in some fashion decrees its fate. *The New*

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Encyclopaedia Britannica (15th edition) devotes a lengthy article to the concept of “Providence,” which is “an element of some importance” in all religions. It defines Providence as a benevolent divine intervention in human affairs and the affairs of the world around us (that is, the natural world or the universe). “The gods take care of the world and mankind, and their intentions toward mankind are normally positive.” Only persistent disobedience and open rebellion can furnish a reason for God, the Creator, to abandon or destroy the world. The total destruction of the world may be threatened for the future; alternatively, the encyclopaedia article points out hopefully, these eschatological events may be construed as the definitive establishment “of a world order that is perfect for all eternity and will never deteriorate.” Because opinions about the potential intervention of God during the next 40 years cover such a wide spectrum, they could not be taken into account in this chapter.

The third possible external influence is an advanced intelligent species that has evolved somewhere else in our galaxy. Such a civilization could greatly influence our future through a detailed encyclopedic message, a visiting spacecraft, or some other method. We will examine such possibilities in chapter 7.