GEORGE SOROS THE CRISIS OF GLOBAL

CAPITALISM

[Open Society Endangered]



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CHAPTER 1

Fallibility and Reflexivity

Trange as it may seem for someone who has made his reputation and his fortune in the very practical world of business, my financial success and my political outlook have rested largely on a number of abstract philosophical ideas. Until these are understood, none of the other arguments presented in this book, whether on financial markets, geopolitics, or economics, can make much sense. This is why the rather abstract discussion of the next two chapters is required. Specifically, it is necessary to explain in detail the three key concepts on which all my other ideas—and most of my actions in business and philanthropy—are founded. These concepts are fallibility, reflexivity, and open society. Such abstract nouns may seem far removed from the everyday world of politics and finance. One of the main purposes of this book is to convince the reader that these concepts go to the heart of the real world of affairs.

Thinking and Reality

I must start at the beginning, with an old philosophical question that seems to lie at the root of many other problems. What is the relationship between thinking and reality? This is, I admit, a very roundabout way of approaching the world of affairs but it cannot be avoided. Fallibility means that our understanding of the world in which we live is inherently imperfect. Reflexivity means that our thinking actively influences the events in which we participate and about which we think. Because there is always a divergence between reality and our understanding of it, the gap between the two, which I call the participants' bias, is an important element in shaping the course of history. The concept of open society is based on the recognition of our fallibility. Nobody is in possession of the ultimate truth. This may seem obvious enough to ordinary readers, but it is a fact that political and economic decision makers, and even academic thinkers, are often unwilling to accept. This refusal to accept the inherent gap between reality and our thinking has had a far-reaching, and historically very dangerous, impact.

The relationship between thinking and reality has been, in one form or another, at the center of philosophical discourse ever since people became aware of themselves as thinking beings. The discussion proved to be very fertile. It has allowed the formulation of basic concepts such as truth and knowledge and it has provided the foundations of scientific method.

It is no exaggeration to say that the distinction between thinking and reality is necessary for rational thought. But beyond a certain point, the separation of thought and reality into independent categories runs into difficulties. Although it is desirable to separate statements and facts, it is not always possible. In situations that have thinking participants, the thoughts of these participants are part of the reality about which they have to think. It would be foolish not to distinguish between thinking and reality and to treat our view of the world as if it were the same as the world itself; but it is just as wrong to treat thinking and reality as if they were totally separate and independent. People's thinking plays a dual role: It is both a passive reflection of the reality they seek to understand and an active ingredient in shaping the events in which they participate.

There are, of course, events that occur independently of what anybody thinks; these phenomena, such as the movement of planets, form the subject matter of natural science. Here thinking plays a purely passive role. Scientific statements may or may not correspond to the facts of the physical world, but in either case the facts are separate and independent of the statements that refer to them.* Social events, however, have thinking participants. Here the relationship between thinking and reality is more complicated. Our thinking is part of reality; it guides us in our actions and our actions have an impact on what happens. The situation is contingent on what we (and others) think and how we act. The events in which we participate do not constitute some sort of independent criterion by which the truth or falsehood of our thoughts could be judged. According to the rules of logic, statements are true if, and only if, they correspond to the facts. But in situations that have thinking participants, the facts do not occur independently of what the participants think; they reflect the impact of the participants' decisions. As a result, they may not qualify as an independent criterion for determining the truth of statements. That is the reason why our understanding is inherently imperfect. This is not an abstruse philosophical debating point, comparable to Berkeley's question about whether the cow in front of him ceases to exist when he turns his back. When it comes to decision making, there is an inherent lack of correspondence between thinking and reality because the facts lie somewhere in the future and are contingent on the participants' decisions.

^{*}But the existence of a material world independent of human observation has been a matter of heated dispute among philosophers since Berkeley.

The lack of correspondence is an important factor in making the world the way it is. It has far-reaching implications both for our thinking and for the situations in which we participate-implications that are deliberately ignored in standard economic theory, as we shall see in Chapter 2. The point I want to make here is that participants in social events cannot base their decisions on knowledge for the simple reason that such knowledge does not exist at the time they make their decisions. Of course people are not bereft of *all* knowledge; they have the whole body of science (including social science, for what it is worth) at their disposal as well as the practical experience accumulated through the ages, but this knowledge is not enough to reach decisions. Let me cite an obvious example from the world of finance. If people could act on the basis of scientifically valid knowledge, then different investors would not be buying and selling the same stocks at the same time. Participants cannot predict the outcome of their decisions the way scientists can predict the movement of celestial bodies. The outcome is liable to diverge from their expectations, introducing an element of indeterminacy that is peculiar to social events.

The Theory of Reflexivity

The best way to approach the relationship between the participants' thinking and the social events in which they participate is to examine first the relationship between scientists and the phenomena they study.

In the case of scientists, there is only a one-way connection between statements and facts. The facts about the natural world are independent of the statements that scientists make about them. That is a key characteristic that renders the facts suitable to serve as the criterion by which the truth or validity of statements can be judged. If a statement corresponds to the facts, it is true; if not, it is

false. Not so in the case of thinking participants. There is a twoway connection. On the one hand, participants seek to understand the situation in which they participate. They seek to form a picture that corresponds to reality. I call this the passive or *cognitive function*. On the other hand, they seek to make an impact, to mold reality to their desires. I call this the active or *participating function*. When both functions are at work at the same time, I call the situation reflexive. I use the word in the same way as the French do when they describe a verb as reflexive when it has its subject as its object: *Je me lave* (I wash myself).

When both functions are at work at the same time, they may interfere with each other. Through the participating function, people may influence the situation that is supposed to serve as an independent variable for the cognitive function. Consequently, the participants' understanding cannot qualify as objective knowledge. And because their decisions are not based on objective knowledge, the outcome is liable to diverge from their expectations.

There are vast areas where our thoughts and reality are independent of each other and keeping them separate poses no problem. But there is an area of overlap where the cognitive and participating functions can interfere with each other and when they do our understanding is rendered imperfect and the outcome uncertain.

When we think about events in the outside world, the passage of time can provide some degree of insulation between thought and reality. Our present thoughts can influence future events, but future events cannot influence present thinking; only at a future date will those events be converted into an experience that may change the participants' thinking. But this insulation is not fool proof, because of the role of expectations. Our expectations about future events do not wait for the events themselves; they may change at any time, altering the outcome. That is what happens in financial markets all the time. The essence of investment is to anticipate or "discount" the future. But the price investors are willing to pay for a stock (or currency or commodity) today may influence the fortunes of the company (or currency or commodity) concerned in a variety of ways. Thus changes in current expectations affect the future they discount. This reflexive relationship in financial markets is so important that I deal with it later at much greater length. But reflexivity is not confined to financial markets; it is present in every historical process. Indeed, it is reflexivity that makes a process truly historical.

Not all social actions qualify as reflexive. We may distinguish between humdrum, everyday events and historical occasions. In everyday events, only one of the two reflexive functions is at work; either the cognitive or the participating function remains idle. For instance, when you register to vote in a local election, you do not alter your views about the nature of democracy; when you read in the newspaper about a rigged election in Nigeria, your changed perception does not affect what is actually going on in that part of the world, unless you are an oil executive or a human rights activist engaged in Nigeria. But there are occasions when the cognitive and participating functions operate simultaneously so that neither the participants' views nor the situation to which they relate remain the same as before. That is what justifies describing such developments as historic.

A truly historic event does not just change the world; it changes our understanding of the world—and that new understanding, in turn, has a new and unpredictable impact on how the world works. The French Revolution was such an event. The distinction between humdrum and historic events is, of course, tautological, but tautologies can be illuminating. Party congresses in the Soviet Union were rather humdrum, predictable affairs, but Khrushchev's speech to the Twentieth Congress was a historic occasion. It changed people's perceptions and, even if the communist regime did not change immediately, the speech had unpredictable consequences: The outlook of the people who were in the forefront of Gorbachev's glasnost was shaped in their youth by Khrushchev's revelations.

Of course, people think not only about the outside world but also about themselves and about other people. Here the cognitive and participation functions may interfere with each other without any lapse of time. Consider statements like "I love you" or "He is my enemy." They are bound to affect the person to which they refer, depending on how they are communicated. Or look at marriage. It has two thinking participants, but their thinking is not directed at a reality that is separate and independent of what they think and feel. One partner's thoughts and feelings affect the behavior of the other and vice versa. Both feelings and behavior can change out of all recognition as the marriage evolves.

If the passage of time can insulate the cognitive and participating functions, reflexivity can be envisaged as a kind of short circuit between thinking and its subject matter. When it occurs, it affects the participants' thinking directly, but the outside world only indirectly. The effect of reflexivity in shaping the participants' selfimages, their values, and their expectations is much more pervasive and instantaneous than its effect on the course of events. It is only intermittently, in special cases, that a reflexive interaction significantly affects not only the participants' views but also the outside world. These occasions take on special significance because they demonstrate the importance of reflexivity as a real-world phenomenon. By contrast, the endemic uncertainty in people's values and self-images is primarily subjective.

Indeterminacy

The next step in analyzing the impact of reflexivity on social and economic phenomena is to point out that the element of indeterminacy I speak about is not produced by reflexivity on its own; reflexivity must be accompanied by imperfect understanding on the part of the participants. If by some fluke people were endowed with perfect knowledge, the two-way interaction between their thoughts and the outside world could be ignored. Because the true state of the world was perfectly reflected in their views, the outcome of their actions would perfectly correspond to their expectations. Indeterminacy would be eliminated, as it derives from the feedback between inaccurate expectations and the unintended consequences of people's perhaps changing but always biased expectations.

The contention that situations that have thinking participants contain an element of indeterminacy is amply supported by everyday observation. Yet it is not a conclusion that has been generally accepted in economics or social science. Indeed, it has rarely even been proposed in the direct form in which I have put it here. On the contrary, the idea of indeterminacy has been vehemently denied by social scientists who assert their ability to explain events by scientific method. Marx and Freud are prominent examples, but the founders of classical economic theory have also gone out of their way to exclude reflexivity from their field of study, despite its importance for financial markets. It is easy to see why. Indeterminacy, the lack of firm predictions and satisfactory explanations, can be threatening to the professional status of a science.

The concept of reflexivity is so basic that it would be hard to believe that I was the first to discover it. The fact is, I am not. Reflexivity is merely a new label for the two-way interaction between thinking and reality that is deeply ingrained in our common sense. If we look outside the realm of social science, we find a widespread awareness of reflexivity. The predictions of the Delphic oracle were reflexive and so was Greek drama. Even in social science, there are occasional acknowledgments: Machiavelli introduced an element of indeterminacy into his analysis and called it fate; Thomas Merton drew attention to self-fulfilling prophesies and the bandwagon effect; and a concept akin to reflexivity was introduced into sociology by Alfred Schutz under the name of intersubjectivity.

I do not want people to think that I am discussing some mysterious new phenomenon. Yes, there are some aspects of human affairs that have not been properly accounted for, but that is not because reflexivity has only just been discovered; it is because the social sciences in general and economics in particular have gone out of their way to cover it up.

Reflexivity in the History of Ideas

Let me try to position the concept of reflexivity in the history of ideas. The fact that statements may affect the subject matter to which they refer was first established by Epimenides the Cretan when he posed the paradox of the liar. Cretans always lie, he said, and by saying it he brought into question the truth of his statement. Being a Cretan, if the meaning of what he said was true, then his statement had to be false; conversely, if his statement was true, then the meaning it conveyed would have to be false.

The paradox of the liar was treated as an intellectual curiosity and neglected for the longest time because it interfered with the otherwise successful pursuit of truth. Truth came to be recognized as the correspondence of statements to external facts. The so-called correspondence theory of truth came to be generally accepted at the beginning of the twentieth century. That was a time when the study of facts yielded impressive results and the achievements of science enjoyed widespread admiration.

Emboldened by the success of science, Bertrand Russell tackled the paradox of the liar head on. His solution was to distinguish between two classes of statements: a class that included statements that referred to themselves and a class that excluded such statements. Only statements belonging to the latter class could be considered wellformed statements with a determinate truth value. In the case of selfreferent statements, it may not be possible to distinguish whether they

are true or false. Logical positivists carried Bertrand Russell's argument further and declared that statements whose truth value cannot be determined are meaningless. Remember, that was the time when science was providing determinate explanations for an ever-expanding range of phenomena, while philosophy had become ever more removed from reality. Logical positivism was a dogma that exalted scientific knowledge as the sole form of understanding worthy of the name and outlawed metaphysics. "Those who have understood my argument," said Ludwig Wittgenstein in the conclusion of his *Tractatus Logico Philosophicus*, "must realize that everything I have said in the book is meaningless." It seemed to be the end of the road for metaphysical speculations and the total victory of the fact-based, deterministic knowledge that characterized science.

Soon thereafter Wittgenstein realized that his judgment had been too severe and he started to study the everyday use of language. Even natural science became less deterministic. It encountered boundaries beyond which observations could not be kept apart from their subject matter. Scientists managed to penetrate the barrier, first with Einstein's theory of relativity, then with Heisenberg's uncertainty principle. More recently, investigators using evolutionary systems theory, also known as chaos theory, started exploring complex phenomena whose course cannot be determined by timelessly valid laws. Events follow an irreversible path in which even slight variances become magnified with the passage of time. Chaos theory has been able to shed light on many phenomena, such as the weather, that had previously proved impervious to scientific treatment, and it has made the idea of an indeterminate universe, where events follow a unique, irreversible path, more acceptable.

It so happens that I started to apply the concept of reflexivity to understanding finance, politics, and economics in the early 1960s, before evolutionary systems theory was born. I arrived at it, with the help of Karl Popper's writings, through the concept of self-reference. The two concepts are closely related but they should not be confused. Self-reference is a property of statements; it belongs entirely in the realm of thinking. Reflexivity connects thinking with reality; it belongs to both realms. Perhaps that is why it was ignored for such a long time.

What reflexivity and self-reference have in common is the element of indeterminacy. Logical positivism outlawed self-referent statements as meaningless, but by introducing the concept of reflexivity I am setting logical positivism on its head. Far from being meaningless, I claim that statements whose truth value is indeterminate are *even more* significant than statements whose truth value is known. The latter constitute knowledge: They help us understand the world as it is. But the former, expressions of our inherently imperfect understanding, help to shape the world in which we live.

At the time I reached this conclusion, I considered it a great insight. Now that natural science no longer insists on a deterministic interpretation of all phenomena and logical positivism has faded into the background, I feel as if I were beating a dead horse. Indeed, intellectual fashion has turned to the opposite extreme: The deconstruction of reality into the subjective views and prejudices of the participants has become all the rage. The very basis on which differing views can be judged, namely the truth, is being questioned. I consider this other extreme equally misguided. Reflexivity should lead to a reassessment, not a total rejection, of our concept of truth.

A Reflexive Concept of Truth

Logical positivism classified statements as true, false, or meaningless. After dismissing meaningless statements, it was left with two categories: true or false. The scheme is eminently suitable to a universe that is separate and independent of the statements that refer to it, but it is quite inadequate for understanding the world of thinking agents. Here we need to recognize an additional category: reflexive statements whose truth value is contingent on the impact they make.

It was always possible to attack the logical positivist position at the margin by conjuring up certain statements whose truth value could be disputed; for instance, "The present King of France is bald." But such statements are either nonsensical or contrived; either way, we can live without them. By contrast, reflexive statements are indispensable. We cannot live without reflexive statements because we cannot avoid decisions that have a bearing on our fate; and we cannot reach decisions without relying on ideas and theories that can affect the subject matter to which they refer. To ignore such statements or to force them into the categories of "true" and "false" pushes the discourse in a misleading direction and places our interpretation of human relations and history in the wrong framework.

All value statements are reflexive in character: "Blessed are the poor, for theirs is the kingdom of heaven"—if this statement is believed, then the poor may indeed be blessed, but they will be less motivated to get themselves out of their misery. By the same token, if the poor are held to be guilty of their own misery, then they are less likely to lead blessed lives. Most generalizations about history and society are similarly reflexive in character; consider, "The proletarians of the world have nothing to lose but their chains" or "The common interest is best served by allowing people to pursue their own interests." It may be appropriate to assert that such statements have no truth value but it would be misleading (and has historically been very dangerous) to treat them as meaningless. They affect the situation to which they refer.

I am not claiming that a third category of truth is indispensable for dealing with reflexive phenomena. The crucial point is that in reflexive situations *the facts do not necessarily provide an independent criterion of truth*. We have come to treat correspondence as the hallmark of truth. But correspondence can be brought about in two ways: either by making true statements or by making an impact on the facts themselves. Correspondence is not the guarantor of truth. This caveat applies to most political pronouncements and economic forecasts.

I hardly need to emphasize the profound significance of this proposition. Nothing is more fundamental to our thinking than our concept of truth. We are accustomed to thinking about situations that have thinking participants in the same way as we do about natural phenomena. But if there is a third category of truth, we must thoroughly revise the way we think about the world of human and social affairs.

I should like to give a minor illustration from the field of international finance. The IMF has come under increasing pressure to operate in a more transparent manner and to disclose its internal deliberations and views on individual countries. These demands ignore the reflexive nature of these statements. If the IMF disclosed its concerns about certain countries, they would affect the countries to which they refer. Recognizing this, IMF officials would be inhibited from expressing their true opinions and internal debate would be stifled. If truth is reflexive, the search for the truth sometimes requires privacy.

An Interactive View of Reality

We may be justified in drawing a distinction between statements and facts, our thoughts and reality, but we must recognize that this distinction has been introduced *by us* in an attempt to make sense of the world in which we live. Our thinking belongs in the same universe that we are thinking about. This makes the task of making sense of reality (i.e., reason) much more complicated than it would be if thinking and reality could be neatly separated into watertight compartments (as they can be in natural science). Instead of separate categories, we must treat thinking as part of reality. This gives rise to innumerable difficulties, of which I should like to discuss only one.

It is impossible to form a picture of the world in which we live without distortion. In a literal sense, when we form a visual image of the world we have a blind spot where our optic nerve is attached to the nerve stem. The image made in our brain replicates the outside world remarkably well, and we can even fill in the blind spot by extrapolating from the rest of the picture, though we cannot actually see what is in the area covered by the blind spot. This may be taken as a metaphor for the problem we confront. But the fact that I rely on a metaphor to explain the problem is an even more powerful metaphor.

The world in which we live is extremely complicated. To form a view of the world that can serve as a basis for decisions, we must simplify. Using generalizations, metaphors, analogies, comparisons, dichotomies, and other mental constructs serves to introduce some order into an otherwise confusing universe. But every mental construct distorts to some extent what it represents and every distortion adds something to the world that we need to understand. The more we think, the more we have to think about.* This is because reality is not given. It is formed in the same process as the

^{*}This point was brought home to me by Kurt Gödel. He proved mathematically that there are always more laws in mathematics than the ones that can be proved mathematically. The technique he used was to denote the laws of mathematics by so-called Gödel numbers. By adding the laws to the universe to which they relate, namely, the laws of mathematics, Gödel has been able to prove not only that the number of laws is infinite but also that it exceeds the number of laws that can be known because there are laws about laws about laws ad infinitum, and what is to be known expands in step with our knowledge.

The same line of reasoning could be applied to situations that have thinking participants. To understand such situations, we need to construct a model that contains the views of all the participants. These views also constitute a model that must contain the views of all the participants. So we need a model of model builders whose models incorporate the models of model builders and so on, ad infinitum. The more levels the models recognize, the more levels there are to be recognized—and if the models fail to recognize them, as they must sooner or later, they no longer reproduce reality. If I had Gödel's mathematical skills, I ought to be able to prove along these lines that participants' views cannot correspond to reality.

participants' thinking: The more complex the thinking, the more complicated reality becomes. Thinking can never quite catch up with reality: Reality is always richer than our comprehension. Reality has the power to surprise thinking, and thinking has the power to create reality.

That said, I have little sympathy with those who seek to deconstruct reality. Reality is unique and uniquely important. It cannot be reduced or broken down to the views and beliefs of the participants because there is a *lack of correspondence* between what people think and what actually happens. This lack of correspondence stands in the way of reducing events to the participants' views just as it thwarts the prediction of events on the basis of universally valid generalizations. There *is* a reality, even if it is unpredictable and unexplainable. This may be difficult to accept but it is futile or downright dangerous to deny it, as any participant in the financial markets who has tried it can testify. Markets rarely gratify people's subjective expectations; yet their verdict is real enough to cause anguish and loss—and there is no appeal. Reality exists. But the fact that reality incorporates inherently imperfect human thinking makes it logically impossible to explain and predict.

As a child, I lived in a house that had an elevator with two mirrors facing each other. Every day I looked into the mirrors and I saw myself reproduced. It seemed like infinity, but it was not. This experience made a lasting impression on me. The view of the world confronting thinking participants is very much like what I saw in those elevator mirrors. Thinking participants must impose some interpretative patterns on what they see. The reflexive process would never end if they did not end it deliberately. The most effec-

It has been pointed out to me by William Newton-Smith that my interpretation of Gödel numbers differs from Gödel's own. Apparently, Gödel envisaged a platonic universe in which Gödel numbers existed before he discovered them, whereas I think that Gödel numbers were invented by him, thereby enlarging the universe in which he was operating. I think my interpretation makes more sense. It certainly makes Gödel's theorem more relevant to the thinking participant's predicament.

tive way to bring closure is to settle on a pattern and emphasize it until the actual picture recedes into the background. The pattern that emerges may be far removed from the underlying sensory perception but it has the great attraction of being understandable and clear. That is why religions and dogmatic political ideologies have so much appeal.

This is not the place to discuss the many ways in which thinking both distorts reality and alters it. The way I have tried to make some sense out of a complex and confusing reality is by recognizing my own fallibility. I have been practicing a critical attitude based on that insight most of my life—certainly since I read Popper—and this has been absolutely fundamental to my professional success in financial markets. It has only recently dawned on me how unusual this critical attitude is. It has surprised me that other people were surprised by my way of thinking. If this book has something original to say, it is on this subject.

Two Versions of Fallibility

I offer two versions of fallibility: first, a more moderate, better substantiated "official" version that accompanies the concept of reflexivity and justifies a critical mode of thinking and an open society; and, second, a more radical, idiosyncratic version that has actually guided me through life.

The public, moderate version has already been discussed. Fallibility means that there is a lack of correspondence between the participants' thinking and the actual state of affairs; as a result actions have unintended consequences. Events do not necessarily diverge from expectations, but they are liable to do so. There are many humdrum, everyday events that play out exactly as expected, but those events that show a divergence are more interesting. They may alter people's view of the world and set in motion a reflexive process as a result of which neither the participants' views nor the actual state of affairs remains unaffected.

Fallibility has a negative sound, but it has a positive aspect that can be very inspiring. What is imperfect can be improved. The fact that our understanding is inherently imperfect makes it possible to learn and to improve our understanding. All that is needed is to recognize our fallibility. That opens the way to critical thinking and there is no limit to how far our understanding of reality may go. There is infinite scope for improvement not only in our thinking but also in our society. Perfection eludes us; whatever design we choose, it is bound to be defective. We must therefore content ourselves with the next best thing—a form of social organization that falls short of perfection but is open to improvement. That is the concept of the open society: a society open to improvement. The concept rests on the recognition of our fallibility. I explore it further later on, but first I want to introduce a more radical, idiosyncratic version of fallibility.

Radical Fallibility

At this point, I shall change my tack. Instead of discussing fallibility in general terms, I shall try to explain what it means to me personally. It is the cornerstone not only of my view of the world but also of my behavior. It is the foundation of my theory of history and it has guided me in my actions both as a participant in the financial markets and as a philanthropist. If there is anything original in my thinking, it is my radical version of fallibility.

I take a more stringent view of fallibility than the one I could justify by the arguments I have presented so far. I contend that all constructs of the human mind, whether they are confined to the inner recesses of our thinking or find expression in the outside world in the form of disciplines, ideologies, or institutions, are deficient in some way or another. The flaw may manifest itself in the form of internal inconsistencies or inconsistencies with the external world or inconsistencies with the purpose that our ideas were designed to serve.

This proposition is, of course, much stronger than the recognition that all our constructs *may* be wrong. I am not speaking of a mere lack of correspondence but of an actual flaw in all human constructs and an actual divergence between outcomes and expectations. As I explained earlier, the divergence really matters only in historic events. That is why the radical version of fallibility can serve as the basis for a theory of history.

The contention that all human constructs are flawed sounds very bleak and pessimistic, but it is no cause for despair. Fallibility sounds so negative only because we cherish false hopes. We yearn for perfection, permanence, and the ultimate truth, with immortality thrown in for good measure. Judged by those standards, the human condition is bound to be unsatisfactory. In fact, perfection and immortality elude us and permanence can only be found in death. But life gives us a chance to improve our understanding exactly because it is imperfect and also to improve the world. When all constructs are deficient, the variations become all important. Some constructs are better than others. Perfection is unattainable but what is inherently imperfect is capable of infinite improvement.

For good order's sake, I note that my claim that all human and social constructs are deficient does not qualify as a scientific hypothesis because it cannot be properly tested. I can claim that the participants' views always diverge from reality but I cannot prove it because we cannot know what reality would be in the absence of our views. I can wait for events to show a divergence from expectations, but, as I have indicated, subsequent events do not serve as an independent criterion for deciding what the correct expectations would have been because different expectations could have led to a different course of events. Similarly, I can claim that all human constructs are flawed but I cannot demonstrate what the flaw is. The flaws usually manifest themselves at some future date, but that is no evidence that they were present at the time the constructs were formed. The shortcomings of dominant ideas and institutional arrangements become apparent only with the passage of time, and the concept of reflexivity justifies only the claim that all human constructs are *potentially* flawed. That is why I present my proposition as a working hypothesis, without logical proof or scientific status.

I call it a working hypothesis because it has worked well both in my financial activities and in my involvement in philanthropy and international affairs. It has encouraged me to look for the flaws in every situation and, when I found them, to benefit from the insight. On the subjective level, I recognized that my interpretation was bound to be distorted. This did not discourage me from having a view; on the contrary, I sought out situations where my interpretation was at variance with the prevailing wisdom. But I was always on the lookout for my error; when I discovered it, I grasped it with alacrity. In my financial dealings, the discovery of error would often present an opportunity to take whatever profits I had made from my flawed initial insight—or to cut my losses if the insight had not yielded even a temporarily profitable result. Most people are reluctant to admit that they are wrong; it gave me positive pleasure to discover a mistake because I knew it could save me from financial grief.

On the objective level, I recognized that the companies or industries in which I invested were bound to be flawed and I preferred to know what the flaws were. This did not stop me from investing; on the contrary, I felt much safer when I knew the potential danger points because that told me what signs to look for to sell my investment. No investment can offer superior returns indefinitely. Even if a company has superior market position, outstanding management, and exceptional profit margins, the stock may become overvalued, management may become complacent, and the competitive or regulatory environment may change. It is wise to be constantly looking for the fly in the ointment. When you know what it is, you are ahead of the game.

I developed my own variant of Popper's model of scientific method for use in financial markets. I would formulate a hypothesis on the basis of which I would invest. The hypothesis had to differ from the accepted wisdom and the bigger the difference the greater the profit potential. If there was no difference, there was no point in taking a position. This corresponded to Popper's contention-much criticized by philosophers of science—that the more severe the test, the more valuable the hypothesis that survives it. In science, the value of a hypothesis is intangible; in financial markets it can be readily measured by the profit it yields. In contrast to science, a financial hypothesis does not have to be true to be profitable; it is enough that it should come to be generally accepted. But a false hypothesis cannot prevail forever. That is why I liked to invest in flawed hypotheses that had a chance of becoming generally accepted, provided I knew what the flaw was: It allowed me to sell in time. I called my flawed hypotheses fertile fallacies and I built my theory of history, as well as my success in financial markets, around them.

My working hypothesis—that all human constructs are always flawed—is not only unscientific but it has a more radical defect: *It is probably not true*. Every construct develops a defect with the passage of time, but this does not mean that it was inappropriate or ineffective at the time it was constructed. I think it is possible to refine my working hypothesis and cast it in a form that can lay a stronger claim to be true. For this purpose, I must appeal to my theory of reflexivity. In a reflexive process, neither the participants' thinking nor the actual state of affairs remains unaffected. Therefore even if a decision or interpretation was correct at the beginning of the process, it is bound to be inappropriate at a later stage. So I must add an important proviso to the claim that all human constructs are flawed: It is true only if we expect theories or policies to be timelessly valid like the laws of science.

Constructs, like actions, have unintended consequences and those consequences cannot be properly anticipated at the time of

their creation. Even if the consequences could be anticipated, it might still be appropriate to proceed because those consequences would arise only in the future. So my working hypothesis is not incompatible with the idea that one course of action is better than another, that there is indeed an optimum course of action. It does imply, however, that the optimum applies only to a particular moment of history and what is optimum at one point may cease to be so at the next. This is a difficult concept to work with, particularly for institutions that cannot avoid some degree of inertia. The longer any form of taxation is in effect, the more likely it is that it will be evaded; that may be a good reason for changing the form of taxation after a while, but not a good reason for having no taxation. To take an example from a different field, the Catholic Church has evolved into something quite different from what Jesus intended, but that is not sufficient ground for dismissing his teachings.

In other words, theories or policies may be temporarily valid at a certain point in history. It is to bring this point home that I call them *fertile fallacies*: flawed constructs with initially beneficial effects. How long the beneficial effects last depends on whether the flaws are recognized and corrected. In this way, constructs may become increasingly sophisticated. But no fertile fallacy is likely to last forever; eventually the scope for refining it and developing it will be exhausted and a new fertile fallacy captures people's imagination. What I am about to say may be a fertile fallacy, but I am inclined to interpret the history of ideas as composed of fertile fallacies. Other people may call them paradigms.

The combination of these two ideas—that all mental constructs are flawed but some of them are fertile—lies at the core of my own, radical version of fallibility. I apply it to the outside world and to my own activities with equal vigor and it has served me well both as a fund manager and more recently as a philanthropist. Whether it will also serve me well as a thinker is being tested right now, for this radical version of fallibility serves as the foundation for the theory of history and the interpretation of financial markets that I lay out in the rest of this book.

A Personal Postscript

My radical version of fallibility is not only an abstract theory but also a personal statement. As a fund manager, I depended a great deal on my emotions. That was because I was aware of the inadequacy of knowledge. The predominant feelings I operated with were doubt, uncertainty, and fear. I had moments of hope or even euphoria, but they made me feel insecure. By contrast, worrying made me feel safe. So the only genuine joy I experienced was when I discovered what I had to worry about. By and large, I found managing a hedge fund* extremely painful. I could never acknowledge my success, because that might stop me from worrying, but I had no trouble recognizing my mistakes.

Only when others pointed it out to me did I realize that there may be something unusual in my attitude to mistakes. It made so much sense to me that discovering an error in my thinking or in my position should be a source of joy rather than regret that I thought that it ought to make sense to others as well. But that is not the case. When I looked around, I found that most people go to great lengths to deny or cover up their mistakes. Indeed, their misconceptions and misdeeds become an integral part of their personality. I will never forget an experience I had when I visited Argentina in 1982 to look at the mountain of debt that country had accumulated. I sought out a number of politicians who had served in previous governments and asked them how they would handle the situation.

^{*}Hedge funds engage in a wide variety of investment activities. They cater to sophisticated investors and are not subject to the regulations that apply to mutual funds. The managers are compensated on the basis of performance rather than as a fixed percentage of assets. Performance funds would be a more accurate description.

To a man, they said they would apply the same policies they followed when they were in government. Rarely had I met so many people who learned so little from experience.

I carried my critical attitude into my philanthropic activities. I found philanthropy riddled with paradoxes and unintended consequences. For instance, charity may turn the recipients into objects of charity. Giving is supposed to help others, but in reality it often serves for the ego gratification of the giver. What is worse, people frequently engage in philanthropy because they want to feel good, not because they want to do good.

Holding these views, I had to take a different approach. I found myself behaving not very differently from the way I behave in business. For instance, I subordinated the interests of the foundation personnel and of the individual applicants to the mission of the foundation. I used to joke that ours is the only misanthropic foundation in the world. I remember explaining at a staff meeting in Karlovi Vari, Czechoslovakia, around 1991, my views about foundations, and I am sure that those who were there will never forget it. I said that foundations are hothouses of corruption and inefficiency and I would consider it a greater accomplishment to wind up a foundation that failed than to set up a new one. I also remember telling a gathering in Prague of staff members from European foundations that networking means not working.

I must confess that I have mellowed with the passage of time. There is a difference between running a hedge fund and a foundation. The external pressures are largely absent and it is only internal discipline that keeps a critical attitude alive. Moreover, heading a large foundation requires people skills and leadership qualities and people do not like critical remarks—they want praise and encouragement. Not many people share my predilection for identifying error and even fewer share my joy in it. To be an effective leader, one has to gratify people. I am learning the hard way what seems to come naturally to politicians and heads of corporations.

There is another influence as well. I have to make some public appearances, and when I do I am expected to exude self-confidence. In reality I am consumed by self-doubt and I cherish the feeling. I would hate to lose it. There is a wide gap between my public persona and what I consider my real self, but I am aware of a reflexive connection between the two. I have been watching with amazement how the development of a public persona has affected me. I have become a "charismatic" personality. Fortunately I do not quite believe in myself as others do. I try to remember my limitations even if I do not feel them as acutely as I used to. But other charismatic personalities have not arrived at their leadership position following the same route as I did. They do not have the same memories. They probably remember that they always tried to get others to believe in them and eventually they succeeded. They are not consumed by self-doubt and they do not need to repress the urge to express it. No wonder that their attitude to fallibility is different.

It is fascinating to consider how my current "charismatic" personality relates to the financial markets and to my previous self as a fund manager. It qualifies me to make deals or even to manipulate markets but disqualifies me from managing money. My utterances can move markets, although I make great efforts not to abuse that power. At the same time, I have lost the ability to operate within the confines of the market as I used to. I have dismantled the mechanism of pain and anxiety that used to guide me. This is a long story, which I recounted elsewhere. The change happened long before I acquired my "charisma." When I was an active fund manager, I used to shun publicity. I considered it the kiss of death to be on the cover of a financial magazine. This amounted to a superstition, but it was well supported by the evidence. It is easy to see why. The publicity would engender a feeling of euphoria and, even if I fought it, it would throw me off my stride. And if I expressed a market view in public, I found it more difficult to change my mind.

It can be seen that operating in the financial markets requires a

different mind-set from that required for operating in a social, political, or organizational setting or, indeed, for acting like a normal human being. This is also borne out by the evidence. There is considerable tension in most financial institutions between profit producers and the managers of the organization, or at least there used to be when I was familiar with these institutions, and the most gifted producers often preferred to go out on their own. That was the genesis of the hedge fund industry.

The radical version of fallibility I have adopted as a working hypothesis certainly proved effective in the financial markets. It has outperformed the random walk hypothesis* by a convincing margin. Does it also apply to other aspects of human existence? That depends on what our goal is. If we want to understand reality, I believe it is helpful; but if our aim is to manipulate reality, it does not work so well—charisma works better.

Coming back to my personal feelings, I have learned to adjust to the new reality in which I am operating. I used to find public expressions of praise and gratitude positively painful, but I have come to realize that this is a reflex left over from the days when I was actively managing money and I had to be guided by the results of my actions, not by what other people thought of them. I am still embarrassed by gratitude and I still believe that philanthropy, if it is deserving of praise, should put the interests of society ahead of ego gratification, but I am willing to accept praise because my philanthropy has in fact met this condition. Whether it can continue to do so in the light of my changed attitude toward praise is a question that troubles me, but as long as I am troubled the answer will probably remain in the affirmative.

^{*}Rational expectations theory maintains that in an efficient market individual guesses deviate from the actual course of prices in a random manner.