The Market System

What It Is, How It Works, and What To Make of It

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Contents

1. Market System Ascendant  1

Part One: How It Works
2. Society’s Coordination  19
3. Market-System Coordination  35
4. Bones Beneath Flesh  52
5. Enterprise and Corporation  61
6. Maximum Reach  84
7. Chosen Domain  97

Part Two: What To Make of It
8. Quid Pro Quo  111
9. What Efficiency Requires  123
10. Market-System Efficiency  140
11. Inefficiencies  147
12. Too Little, Too Late  166
13. Freedom?  178
14. Personality and Culture  193
15. Persuading the Masses  212
16. Necessary to Democracy?  226
17. Enterprise Obstructions to Democracy  236

Part Three: Thinking About Choices
18. Alternative Market Systems  253
19. An Alternative to the Market System?  265

Notes  279
Index  291
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The massive social changes with which the twentieth century gave way to the twenty-first have written the preface to this book. Much of the world began an unexpected transformation. Communist systems are abandoning central planning of their economies and struggling to establish the market system in its place. China freed its farmers to produce and sell for profit rather than under instruction from the state. It began moving industry out from under the system of state-prescribed targets and quotas. Less buoyant, Russians try to swim in the same tide, both their Berlin Wall and their economy having come down in ruins.

Much earlier, the democratic world had been surprised to see the democratic socialists of Western Europe abandon their traditional ideological hostility to the market system. After World War II, they no longer pressed to abolish it. Instead socialist parties in France, Italy, and Britain advocated a new kind of market system, with state-owned rather than private market enterprises. But not for long. They began to turn to the familiar capitalist private corporation while they pursued their socialist aspirations through income redistribution and the social programs of the welfare state. And so, like the British Labour Party today, they talk not of state-owned enterprises but a “third way”—a way not yet well defined but in any case embracing the market system.

Meanwhile, nonsocialists, both liberal and conservative, have taken a renewed interest in the market system, resist-
ing both government regulation of business and social welfare programs. Much of their change of heart seems motivated by what they see as failures of the state: bureaucratic lethargy, for example, or excesses of partisanship. Some of it, however, arises out of the case now often made for the market system—as, for example, in the drive toward a common market for Europe, in globalization, and in exploiting the opportunities of the “New Economy.”

Despite this great current of change, transition of communist systems to the market system may never be complete. Some nations of the former USSR—perhaps Russia itself—may return to old ways rather than continue to suffer the hardships of transition. Many Russians see their embryonic market system as a cousin to gangsterism, so exploitative has become their transitional system—whatever it might be called. Russia today reveals some of the worst aspects of the market system. The end of the story has yet to be written.

What a beginning to a century! These great changes and failures ask for a book neither to celebrate nor deplore but to understand the market system, around which the dramas revolve.

One can study economics for many years without understanding the market system. I graduated from college without understanding it. If my instructors understood it, they did not take the trouble to explain its structure. They taught about trees rather than forest, about inflation, monopoly, and international trade. They somehow failed to present the overarching structure of social organization called the market system. You perhaps have seen a picture full of diverting detail that only on careful examination
abruptly reveals a face or other object that had been hidden in all the detail. That was my problem: detail was abundant, but for years I could not find the face.

For at least 150 years many societies have been trapped in an ill-tempered debate about market systems. Now we have an opportunity to think about these systems with a new dispassion and clarity. Market ideologues have learned that there is little to fear from communism. They can come away from their ideological barricades and talk sense about the market and its problems. On their side, socialist ideologues have realized that aspiring for a better society is not enough. They have to face the complexities of constructing one.

Even so, it will not be easy to think straight about the market. Mainstream economics still stumbles because the market’s dazzling benefits half blind it to the defects. On the other hand, many critics perceive the benefits only through the smoke of their burning disapprobation. An often tight-lipped rigidity persists, even in the most scholarly discourse. One does not find much intellectual interchange on the market system between economists, most of whom admire it, and those scholars of history, literature, and philosophy who, like the sociologist-philosopher Jürgen Habermas, judge its consequences for values like freedom, rationality, and morality.

One’s understanding of the market system is sometimes impeded by a sense of mystery or magic about how it works. Adam Smith acknowledged as much when he wrote, more than two hundred years ago, that market activities are coordinated by a “hidden hand.” In our time, the full account must describe the workings of both the hidden hand and the many visible hands.
What Is This Market System?

We need first to draw a distinction between market system and market. Although not all societies embrace or contain a market system, all existing societies make use of markets. Walking down a street in either Maoist China or the USSR, a visitor would have seen markets for haircuts, bicycle repair, and consumer commodities. An observant visitor would soon also have found markets (perhaps more black than legal) for raw materials and machines. Whenever people frequently pay other people to do something—sing a song or dig coal—those interchanges constitute markets. Yet despite the commonality of such interchanges in Maoist China and the Soviet Union, these societies were not called market systems, because a market system exists only when markets proliferate and link with each other in a particular way. Just as a basket of parts does not make a computer until they are assembled or used in a particular way, so an assortment of markets does not make a market system until they are employed in a particular way—specifically to organize or coordinate many of the activities of a society.

The market system organizes or coordinates activities not through governmental planning but through the mutual interactions of buyers and sellers. To establish a market system it is not enough that people buy and sell. Also required is that their purchases and sales, not central authorities, coordinate the society. This gives us a definition of the market system sufficient for our immediate purposes: it is a system of societywide coordination of human activities not by central command but by mutual interactions in the form of transactions.

I find it useful to contrast the market system with an-
other method of organization, though only small scale: the household. In premarket households, paternal or other authority coordinated the activities of members of the household to try to provide the necessities and pleasures of life. The household was organized to produce for its own use whatever was needed or wanted. It coordinated child rearing, housekeeping, and cultivation of the soil. Householders might only now and then reach beyond the household for some assistance—perhaps musicians for a wedding—or for a commodity they could not provide for themselves. They might only rarely see a coin. The market system appeared only when these households began to attempt production for sales rather than for household use—that is, when they became deeply engaged in producing for distant others rather than simply for family. Only then arose such large-scale and detailed social coordination as market systems provide.

Market systems did not wholly displace the production-for-use household. The household remains a bedrock of the contemporary market system, continuing to organize much of child rearing, food preparation, and maintenance of the home. What, then, changes with the rise of the market system? Typically, the household allocates one or more members of the family to go outside the household with production for sale—he becomes a cobbler, making shoes to sell—so that the household can obtain objects and assistance that it cannot produce on its own.

If not just a household but a whole society is to be coordinated, then in a wider social process the participants have to be assigned to the many tasks that need doing. Tools and machinery have to be made available to those who can use them. Farmers need to feed not only themselves but those
engaged in industry. Hypothetically, this can all be arranged through central command, but in historical fact, it has been largely arranged by buying and selling.

Three kinds of markets are the most familiar: labor markets, agricultural markets, and markets for services and goods that industry provides to consumers. Two less obvious kinds of markets are no less necessary for a market system. One is markets for intermediate services and goods produced for other producers—for example, computer chips sold to enterprises that assemble computers from purchased parts. The other is markets for capital, specifically markets for loans, securities, and other kinds of investments. In these two kinds of markets the major participants are no longer ordinary people but entrepreneurs, enterprises, and financial institutions.

The rise of market-system coordination of the production of services and goods for sale outside the household was slow and uneven, but by about 1800, England qualified as a market system (some historians put it earlier), and Western Europe and North America followed.

Drawing people out of the household into a wider coordination was, however, an idea antedating the market system. The usual formula for doing so was central coordination. Ancient Egypt’s rulers drew labor from each household in order to put it to work on irrigation projects, defense of the realm, and construction of temples and pyramids. Although royal coordination of a vast labor force declined in subsequent centuries, the idea of societywide central coordination did not. It was still alive more than three thousand years later, in the mid-nineteenth century, in the desire of communists and some socialists to organize society by central direction. At their most ambitious, they envisaged doing away with money, prices, and markets, all considered
obstructions to rational and humane social organization. Because some utopians still aspire to it, the idea deserves a name. I shall call it physical planning.

A new idea of central planning arose in a late nineteenth- and early twentieth-century reaction against the market system: convert the great structure of trade with money and prices into a centrally coordinated system. The new planners first came to power in Russia, through the Russian Revolution, and later in China, with a few small countries following in imitation. They were not twentieth-century Pharaohs or advocates of physical planning. They were more sophisticated planners proposing to make use of money and prices and even markets—but not of the whole market system, which they abhorred—as instruments of their central control. It is of course such a system that fueled the great twentieth-century communist challenge to the market system.

Dimensions of Market System

Like the state, the market system is a method of controlling and coordinating people’s behavior. If you call on a team of gardeners to do some weeding, you, not the state, exercise the control that brings them into coordination with you. They turn up and do the job. You did not coerce, compel, or even command them, but you succeeded in getting them to do what you want by paying them. When a hundred workers predictably appear at the gate of a factory every morning at 8, their appearance is not commanded by an agency of the state. They are there because they are controlled and coordinated by promise of money payments.

Can it really be true that the apparent disorder of buying and selling accomplishes anything so profound as control
and social coordination? Everyone can see that the state accomplishes some coordination of the whole national society, but it is harder to see that the market system also does so—in fact organizes both nation and globe. But is it not true that people are either coordinated by the state or are left to do as they wish, all going their own way, as in the market? That is a colossal misperception. In market systems people do not go their own way; they are tied together and turned this way or that through market interactions. If they were in fact left to go their own way they would not achieve the prodigious feats of production that characterize market systems. That market participants see themselves as making free and voluntary choices does not deny that they are controlled by purchases and sales.

The market system is not, however, Adam Smith’s laissez-faire, not a market system tied to a minimal state. In our time it is a governed market system, heavily burdened or ornamented with what old-fashioned free marketers decry as “interferences.” In these systems, the state is the largest buyer: it has a long shopping list, including a military force, highways, and the services of police officers and bureaucrats. It is a mammoth supplier as well, although in providing many of its services—elementary education, as an example—it usually gives away the “product” rather than sells it. Rather than let supply and demand set prices, it often does so itself: keeping agricultural prices high to aid farmers, or holding agricultural prices down to curb distress among the urban poor. It forbids some kinds of sales: most nations now prohibit slavery. It taxes, not simply to raise revenue but to curb some industries, like tobacco. One way or another it subsidizes most industries, almost all of which hold their hands out. It is a gigantic borrower and a frequent lender. It engages in sales promotion abroad to enlarge over-
seas markets for its entrepreneurs. It collects enormous funds to disperse through social welfare programs. And it is a powerfully active manager of supplies of money and credit both through its controls over banking and its own fiscal policy.

Some of these governmental activities are necessary to make a market system flourish. Some are at least helpful, some are wasteful. Some represent nothing better than raids on the public purse. However evaluated, they are part of the story of how market systems work.

Although buying and selling may be natural to human-kind, market systems are not. They have in fact arisen only recently in history. Also not natural are the complexities of corporate law, the abstract shares in ownership called stocks and bonds, the rituals of collective bargaining. Neither natural nor God given, market systems are also not all alike. And just as today’s differ from those of fifty years ago, they differ from those the future will bring.

One can imagine a market system in which all enterprises, or at least all the large ones, are state owned and operated as market enterprises. They are market enterprises because their outputs and inputs are decided by market buying and selling rather than by governmental command. One can also imagine a co-op market system in which all enterprises are owned by their customers. Another possibility is ownership and operation by employees. But the now ascendant market system is of course the one that Karl Marx called capitalism, now more often called the private enterprise system. That is the kind of market system that will get most of our attention, but not to the exclusion of other kinds of market systems and of interesting market-state hybrids.

Movement today to the market system intertwines with
another great recent movement—from dictatorship to democracy. The Soviet Union expired in the pursuit of both. But the two movements differ: China’s masters push toward market system but not democracy. And many countries with market systems have yet to attempt democracy or, like Mexico, only now reluctantly are doing so. If you applaud the movement to the market system as necessarily democratic, you are at least premature and possibly plain wrong: both China and Russia may carry market systems into and through the twenty-first century without democracy. In ostensibly democratic societies, market skeptics sometimes fear that the market system may bring an end to democracy. One of their fears is that big corporations already exercise powers inconsistent with democracy; and that multinational corporations overwhelm small nation-states. Again, we can begin by trying to get the facts straight, difficult as it is to unravel the many connections between market and democracy.

What We Don’t Know

Market advocates say that Western experience has now conclusively shown that the market system can make a society wealthy. They also say that it is clear that it also protects personal freedom—market societies do not degenerate into such impositions as the forced labor camps of the USSR. Market successes prove, they might add, the obsolescence of tired old attacks on the market. So, they say, we now all understand the system. They believe that we need technical studies by economists to maintain its health—doctors for the body economic—but that we adequately understand the elementary anatomy and physiology of the market system.
Yet it might be that technology and industrialization rather than the market system deserve credit for making societies wealthy. And don’t some countries with market systems—Indonesia, among others—trample on the very freedoms that market systems are alleged to strengthen? Or must we confess that many nation-states are troubled about just what place to give to market system—the Japanese government, for example, first heavily indulging and then backing off from its heavy state participation in market investment decisions? Most market societies also seem troubled by the task of combining market system with welfare state. They are also uncertain about market regulations to protect the environment. In some, an especially troubling question has arisen: Can market employment be made available for all able-bodied adults, or does the market combined with high technology now begin to render the least skilled workers redundant, in effect exiling them from the market system, to be supported by state welfare programs?

Issues like these pose a great deal more than technical problems that require only the professional skills of economic doctors. They are great issues of liberty and equality and of individualism and community, as well as more tangible issues, like conflict between growth and environmental protection. If one can hope for at least modestly intelligent choices on issues like these, they will come from a better understanding of what the market can or cannot do or, more precisely, what people can or cannot choose to do through their use of the market system. For example, if the market system in fact constitutes an irreducible source of income insecurity or extreme income inequality, that would set upper limits on the uses of tax and welfare policies to redistribute income.

Despite the growing consensus in favor of the market
system, it is of course possible that the millions of people who now endorse it are on the wrong track. Such consensus as exists is a political phenomenon, not a scientific demonstration. We cannot simply ignore the many highly informed dissenters who believe that experience with the market system has already shown, to anyone who cares to look dispassionately at the evidence, that it has put us all on the road to disaster.

They argue that it exhausts the world’s resources and also threatens an environmental catastrophe through, among other possibilities, global warming. They also show that it has already created health-threatening urban environments while simultaneously drawing ever more people into the cities. Clearly, they can also show, it has not put an end to the inhumanity of acute poverty. And all these ills, they argue, it will bring to the newly marketized societies. That alternatives to the market system might do worse is not a good reason for failing to examine what the market system may do to its participants.

None of these and many other claims for or against the market system—all significant for our futures—is obviously true or obviously false. Is the market system efficient, as its advocates believe? Look at its prodigious output. Is it inefficient? Look at poverty and inadequate medical care. Do market societies spoil the environment and exhaust our resources? Yes, but so do all societies—perhaps we mistake the cause. Does the market system degrade personality and culture? On that point, what shall we count as evidence—persons who pursue money to the exclusion of any other values, or the institutions for science, education, and art that flourish in market societies? Is the market system ally or enemy of democracy? What we call democracy does not exist except in market societies; yet the influence of money
in politics arouses suspicion that none of these societies are very democratic.

Revealed in this debate are a few overarching questions about the market system. What does the market system do for the market-oriented societies? What accomplishments and ills has it brought them? Is it likely to do the same for the countries now constructing market systems? What future does it offer? What different kinds of market systems are worth considering? In short, to what condition has it brought us, and to what condition can we now take it?

Talking about the future now seems to require a new vocabulary. Terms like information revolution, photonics, cellular entrepreneurial networks, and globalization suggest the dimensions of the world’s rush to a technologically sophisticated future. It looks as though information has become the basic resource, displacing in part the traditional trio of labor, land, and capital. How are these highly mobile new resources of information or knowledge to be organized or coordinated, not only nationally but globally? Almost no one proposes to use only the central authority of each of the nation-states. Nor have I heard many voices advocating the creation of a world state to coordinate the new technologies of information and knowledge. What I do hear is that the new forces will “open up vast new markets,” that markets are “spreading around the globe,” and that “information technology is accelerating the rate of change in market societies.” All the more reason to understand the market system as, for good or bad, the big globalizer. It is the major institutional instrument for undercutting the autonomy of individual nation-states and for quickening the restless movement of labor and capital over the face of the earth.

Although dispute on the market system is endless, we are going to establish some key facts about it. It can coordi-
nate human behavior or activity with a range and a precision beyond that of any other system, institution, or social process. But it is a harsh and often cruel coordinator. It is both an ally and enemy of personal freedom—ally because it opens up a range of choice for each participant, but enemy because it closes off some major choices that a free people could otherwise make. It destroys many mammoth historical inequalities and then introduces inequalities of its own. It achieves extraordinary efficiency because it permits participants to make precise and calculated choices. But it is grossly inefficient because of the choices it has closed off. Historically, it has supported democracy—there are no democratic nation-states except in market societies—but it has sabotaged important democratic features of ostensibly democratic states. It is also a rival to democracy because both market system and democracy allow people to exercise popular or mass control over elites in government and business. Its scope is much broader than often conceived to be; it can do more things than most people think it can. Yet, paradoxically, it does not operate in some arenas everywhere identified with it. We shall also find grounds for believing that no market system has yet been well supported by the state.

Do I have a central or overarching thesis in this book? Yes, if you want one; no, if you don’t. Some common theses are not mine. I do not try to convince you that you should, taking everything into account, admire or deplore the market system. Nor do I suggest that the historical argument on the market system has come to an end with a victory for the market system. My thesis is that there are great unsettled issues about a place for the market system in the future of any society.
But what moves me to write is a desire to examine the market system as an extraordinary social process, just as one might, in wonder or even awe, examine an enormously complex machine or biological organism, whether benign or threatening. Although the market system is roughly familiar to all of us, not even economists wholly understand it; and I as an economist want to extend my own understanding as well as that of the reader. I can think of many purposes to which an improved understanding can be put, and the gain in understanding is itself a pleasure.
PART I

How It Works
Society’s Coordination

Having presented the market system as a method of social coordination, I need now ask: What does social coordination (or organization) consist of? How is it accomplished? Coordination is a big concept. It will open the way to show the broad effects of the market system on society rather than confine its effects to that segment of society called the economy.

For the time being, let us rid ourselves of the idea of an economic system. Pretend that we have never heard of any such thing. Also drive out of our minds concepts usually used to explain the market system, like supply and demand, commodities, production and distribution. For a short time, forget them all. They would distract us from understanding the key relation between market system and social coordination or organization. Think society, not economy.

Imagine 20 million families scattered over an uninhabited territory as large as France. At first they do not constitute a society but are no more than an unorganized aggregate. Each family retreats into isolation, and some wage war on others. How might they become a society? Through practices that coordinate them. These are practices that create interchanges with each other for security and cooperation and, no less, for obtaining food and necessary objects, like tools.

If you and I agree to lunch together, we have accomplished a small coordination. A political party is a larger coordination, and 80 million people at peace with each other
still larger. Some familiar coordination may not even be recognized as coordination: a parent’s care of a child, for example. At the other extreme, coordination requires a conspicuous set of social mechanisms: the activities of legislators, teachers, and recordkeepers, for example.

Coordination ranges from tyrannical to democratic. My notion of a well-coordinated or organized society might envision a dominating elite—Plato’s philosopher-kings or an aristocracy, for example. Yours might envision egalitarian institutions.

There are two functions of coordination. One is to curb injuries that otherwise people inflict on each other. That requires constraints on violence, theft, and interference with each other’s movements. Let us call this coordination for social peacekeeping. The second purpose is more ambitious—to organize the giving and receiving of help. Almost everyone helps others, and everyone receives help from others, although not necessarily from precisely those to whom one has given it. Call it coordination for cooperation.

For either kind of coordination—peacekeeping or cooperation—wholly voluntary initiatives alone will not do. Rather, both kinds of coordination succeed because people are subjected to controls. Law is of course a great coordinator, protecting, among other things, the privacy of my home from injuries of invasion of it. Custom also is a great coordinator: for example, it gives people a common language, hence many possibilities of cooperation. But the controls that induce coordinated behavior go far beyond these two.

Wanting to be tough-minded, we sometimes dismiss cooperation as aspiration rather than necessity. But social cooperation is not pie in the sky. In fact, nothing is more obvious than that cooperation, large scale as well as small scale, pervades every society. A human infant dies unless at least
one adult steadfastly supports it in its early years. No one builds even a simple roadway without help—no more than one’s own driveway, and that with help at least from whoever made the shovel. Only by cooperation—by helping others and being helped—can we curb epidemics, advance science, or enjoy the pleasures of play and friendship. And it takes cooperation among legislators, judges, and police officers to construct and administer rules for curbing injuries.

I think we fail to grasp the full significance of cooperation because the common meaning of the term is narrow. Cooperation, we often imagine, is a situation in which A helps B and B helps A, both doing so deliberately and knowingly. An example: you and I cooperate to move a heavy piece of furniture. With that restricted concept, we mistakenly overlook the larger kind of cooperation, fundamental to the existence of society. A helps B. B helps C, D, . . . or Z, perhaps also but not necessarily A. The help may be either intended or unintended, and it may be offered unknowingly, just as it may be received unknowingly. When you remove unsightly debris from your property, saving me the trouble of calling the police to compel its removal, you may not have known that you were benefiting me. Aggregates of people become societies and people survive and flourish because of this second kind of cooperation. It is the foundation of social life and at the core of the market system.

Although we often associate cooperation with a sense of community, no such sense is required for cooperation broadly defined, for often cooperators neither talk with nor even know each other. Or they may detest each other. Like two ambitious cabinet ministers who must cooperate if only to keep their positions, they may look malevolently on each other as rivals. Usually people link with each other only impersonally and at a distance, as in the cooperation of
research meteorologists all over the world. The efforts of all, mostly strangers to one another, help to improve the accuracy of weather prediction. Nor is cooperation necessarily high minded. People usually cooperate not altruistically but because it serves their purposes or because they are compelled to do so. They also often cooperate without intending to, or without even becoming aware that they are actually engaged in cooperation. When I deliver empty bottles to a local recycling center, somebody trucks them away to a processing facility. Other steps follow. I may give not a moment’s thought to the chain of cooperation in which I constitute a link.

To get a sense of the beyond-the-horizon scope of cooperation, it is revealing to try to calculate how many people cooperate in order to graduate a student from secondary school. (No need to ask how many have to love each other, know each other, or be aware of their roles.) Informally, parents and other family members do much of the necessary teaching, they themselves having been taught by their parents and other family members. We add to that number all the child’s classroom teachers, from kindergarten through high school, and the teachers who trained them. Include classmates—they teach each other and, in so doing, draw on what they have been taught by their family members. We must include also those who build and maintain school buildings—a complete account would include everyone from ancestors to meter readers. The list runs not into hundreds or thousands but millions of cooperators.

Superficially, it looks as though people fight more than cooperate, as seems evident in controversies on public education, foreign policy, and taxes, for example. Yet each fight is evidence of cooperation. We fight over education and taxes only because we are cooperatively engaged in main-
taining a public school system. The fight is about who is to be in charge of the cooperation, how it is to be carried out, who is to pay for it, and who is to benefit. Conflict over sharing the benefits can be sharp, persistent, and often bitter, which is as true for quarreling spouses as it is for communities competing for government funds.

I am inclined to think that many of us do not appreciate the accomplishments of social coordination either for peacekeeping or cooperation. We do not stop to consider that many millions of people are well enough coordinated to live at peace with each other, nor that cooperation has permitted humankind to create—with no end yet in sight—new means of gratifying many of its aspirations.

Instead, our attention is drawn to malcoordination, both the vast scope and severity of mutual injury—the human animal is still a killer—and the ills of grossly inefficient cooperation: ignorance, poverty, and malnutrition among them. Yet one would not want to minimize this malcoordination, for it is not simply an inefficiency but a continuing tragedy. It is therefore difficult to think straight about social coordination, both the great human accomplishment and the great failure.

Coordination Without a Coordinator

A market system is a method of social coordination by mutual adjustment among participants rather than by a central coordinator. We need, therefore, to understand the possibilities of coordination without a coordinator. The idea of coordination through mutual adjustment comes as a novelty to many people, yet we are all constantly engaged in it.

Husbands and wives typically achieve coordination, for both peace and cooperation, by working things out through
mutual adjustments to each other. Each adapts to the other’s peculiarities and finds ways to influence the other. They may succeed in their coordination with no more than an occasional appeal to an overseeing mother-in-law. Civil servants constantly engage in give-and-take to work out their coordination, as do scientists, teachers in a school, politicians, and children on a playground.

Many people define coordination as the activities or accomplishment of a coordinator, a definition that blinds them to cooperation by mutual adjustment. They sometimes also fall into a comparable misperception: that coordinators by definition coordinate. Ostensible coordinators do not necessarily coordinate; they sometimes make a mess of things. Legend has it that the greatest central coordinator of them all flooded the earth to erase some creative mistakes. Many central coordinators have tried to bury theirs.

The distinction between central and mutually adjusting coordination can also be seen as the distinction between unilateral and multilateral control. Who exercises control—a central coordinator or many interacting participants? Both systems of coordination use the same tool kit of controls: talking things over, mutual back-scratching, paying someone to do as one wishes, issuing commands. (Clearly centralists have the power to command, but so also do many of the persons engaged in mutual adjustment.) Both systems also make use of less attractive controls—for example, threats: “Do it or else!” The difference is the unilateral-multilateral contrast.

You can unilaterally control and thus coordinate five of us as we work together to launch your boat. Or the six of us can achieve a nice coordination simply through multilaterally watching, responding to, and influencing each other. Or think of two dozen pedestrians on a city street corner
facing a similar group across the street. How do they coordinate to avoid collision? A central coordinator on the sidelines could call out instructions to each on when and by what route to move through the oncoming others. Intolerably slow and clumsy—would anyone bother to listen? Without anyone’s giving it a thought, however, everyone coordinates quickly and precisely through various mutual adjustments. Each person warily watches the eye and body movements of those nearest. To some, one defers. To others, one’s movement signals a gentle threat. In a few seconds the two sets of walkers pass through each other without injury. Their coordination may or may not have been assisted by custom or rules, such as “keep right.”

Mutual adjustment is not always small scale. Language provides an example of large-scale multilateral coordination. To say that 300 million people read, write, or speak Spanish means that they have come to agree on certain sounds and symbols—an enormous feat of coordination, indeed of cooperation. But no overarching authority—no person, no committee—could have designed the Spanish language, or Malay or any other tongue. Languages arise out of centuries of mutual adjustment in the use of sounds and symbols. They are only marginally influenced by attempts to impose central controls, such as that of the Académie Française, which seeks to protect the French language from impurities.

Morality is regulated through mutual adjustment on an even larger scale. Through moral rules, humankind has achieved a nearly worldwide coordination of a few dimensions of behavior: many people are presumably morally constrained, for example, from inflicting physical injury on others. These moral rules are not centrally designed and imposed but have emerged from mutual adjustment. An even
larger scale mutual adjustment? Biologists now tell us that 50 billion atoms coordinate to make each of your DNA molecules, and 1,000 million million cells to make your body. No central coordination; all through mutual adjustment.

The international political order of the past fifty years stands as conspicuous evidence of the scope of mutual adjustment. During that time, mutual adjustment has averted nuclear war or any orgy of destruction like that of the first and second world wars. One might think that the United Nations and NATO bring central coordination to bear, but they lack the necessary unilateral authority to do so because member nations are unwilling to grant it. They do, however, facilitate mutual adjustment among nation-states.

The Internet may turn out to be the key technology for a mammoth expansion of multilateral worldwide communication. It opens up possibilities of mutual adjustment that are not yet even imaginable.

Participants in mutual adjustment of course differ greatly in the capacities they bring to interactions. Pedestrians at a crowded intersection differ from each other in their mutual influences: height, weight, fierceness of visage, vigor of stride, and the like. A prime minister or CEO not strong enough to practice unilateral control over colleagues can nevertheless bring bigger guns to bear on them than any one of them can respond with.

We all know that societies deliberately design some formal structures of mutual adjustment—the United Nations, for example, or a nation’s tripartite wage board. Much more frequently, mutual adjustment arises inconspicuously, without design. And participants in interchange often bring their influence to bear more inadvertently than deliberately—they need not be aware of their parts in a vast coor-
dination. Their incentive to bring a new term like “on line” into use is their own convenience, not a desire to take responsibility for language planning.

Face-to-face or voice-to-voice interaction is not a requirement for mutual adjustment, frequent though it is. Global ethical codes, for example, have emerged from tacit agreements among people, most of whom never see each other. Coordination, say, of growth patterns of neighboring municipalities is often achieved by officials’ taking account of one another’s moves rather than negotiating.

All real-world coordinating systems are, of course, hybrids in which centrality and mutual adjustment depend on each other, neither being wholly absent. Many of the extraordinary mutual adjustments of American politics were set in motion by the design of the U. S. Constitution, with a constitutional convention playing a centralist role. That auto traffic moves on congested roadways is a joint accomplishment of centrally designed rules and endless mutual adjustments among drivers.

Reluctant Recognition

Like all forms of coordination, mutual adjustment naturally is imperfect. Yet I think we have been misled by the nervous though greatly honored minds of Western political philosophy to underestimate it. An overriding concern seems to run through the history of thought: How can a society maintain order? Obviously by controls that induce people to behave in orderly ways. The philosophers writing about order lived in societies in which the controls believed necessary for order lay in the hands of elites who exercised them over their “inferiors.” Perhaps the philosophers could not imagine controls exercised in any patterns other than
unilateral and hierarchical. Nor, considering their own fa-
vored positions in society, would they regard that as an at-
tractive possibility. I suggest that, as a consequence, the
study of order or coordination became in large part a study
of how elites could unilaterally keep the masses under con-
trol and of how they could justify their doing so. Take as an
example from the first days of political philosophy Plato’s
Republic, which, despite its monumental merits, makes a
suspect case for the justice of hierarchical or unilateral elite
rule over mass. Aristotle’s very notion of order was hierar-
chical.

How severely philosophy and theology may have mis-
perceived the problem of order or coordination is revealed
in the history of disorder. The greatest disturbers of social
order have not been peasants, though they occasionally
have tried to revolt, but the holders of unilateral author-
ity—the would-be central coordinators: among them, Alex-
ander, the marauding Roman emperors, Genghis Khan, the
rapacious quarreling lords of medieval and Renaissance Eu-
rope, Napoleon, Lenin, and Hitler.

A few figures in the history of thought have found sig-
nificant place for mutual adjustment. Not surprisingly,
they have given more thought to how a society can act in-
telligently than to how it can be made obedient. In the sec-
ond century B.C., the historian Polybius claimed that the
merits of early Roman institutions were not attributable to
design from the top but to a continuing set of political in-
teractions constituting successful trial and error. In 1748,
we find a fuller but still embryonic appreciation of mutual
adjustment in Montesquieu’s Spirit of the Laws. In the al-
most two thousand years that separate these two, others of
like mind must lie buried in the history of philosophy, and
it is noteworthy that perhaps no one has searched hard to find them.

One might write a short history of thought in such a way as to bring coordination through mutual adjustment to front and center. With his *Principia* in 1687, Newton, “the greatest scientist that ever lived,” would come first. He explains the physical world as a mechanism of mutual adjustment of heavenly bodies. He attributes nothing to central coordination, nothing to a central sovereign mind—in short, nothing to God except responsibility for setting celestial mutual adjustment in motion. Next, in 1859, would come Darwin with his *Origin of Species*. He explains the multiplicity of species, their patterns of change and evolution, and begins the explanation of life itself. Like Newton, he finds the explanation in mutual adjustment, in his case among living things. His monumental theory of evolution—about complex biological coordination without a coordinator—continues, like an icebreaker in Arctic waters, to open channels of thought that appreciate mutual adjustment. He finds no place for a central organizing mind or authority. If God the centralist exists, God is nevertheless not necessary to the explanation.

Then, in 1776, Adam Smith explains in *Wealth of Nations* the coordination of society as the accomplishment of mutual adjustment rather than of central competence of king or finance minister. He fails, however, to generalize his explanation of social order beyond market life. Finally, in about 1900 comes Freud, now out of fashion and not a match for the first three, but nonetheless a pivotal figure. Peering into human mind and behavior he realizes that each of us is internally an arena of mutual adjustment. We consist of conflicting impulses, perceptions, and volitions,
and we are not governed by a unified sovereign intelligence.

**Merits of Mutual Adjustment**

It appears that every society needs both central and mutually adjustive coordination, each in its place. Some of the merits of mutual adjustment make it indispensable; I mention only a few beyond those already apparent.

For limiting injury, rules and authority will in some circumstances do well, for their main message is simply “Thou shalt not!” But cooperation requires an allocation or assignment of a coordinated set of tasks. A society neither constructs a medical-care system nor clothes its people by giving orders to participants on what they must not do. To achieve positive cooperation, somehow society specifies each of a great number of tasks to be performed, as well as the circumstances in which each is to be performed and by whom. A medical-care system rests not simply on a set of prohibitions but on complex procedures to determine how physicians are to be trained and qualified, their responsibilities and conditions of work, and their rewards.

Moreover, the assignments have to be endlessly adapted. They are not once-and-for-all assignments but are tailored to changing needs, as for medical care, and to factors such as the caregivers’ training, experience, and age. If, in addition, cooperating persons want to exercise a degree of free choice about how and when they participate, cooperation becomes all the more complex and lies even further beyond the reach of rules and authority.

Rules and authoritative instructions are often too clumsy. They can apply only to more static categories. For an extreme case, imagine members of a soccer team trying
to cooperate to win a game simply by following prescribed rules and authoritative instructions shouted from the sidelines. In actual practice, players signal one another with movements and voices in a moving cooperation, their signals much more precise and fast-changing than those supplied by rules and authority. Cooperation among government officials, even though partially prescribed by rules and authority, also requires bilateral or multilateral interchange of signals, incentives, and threats, as in negotiations in multiparty systems to form a cabinet.

For most social cooperation—from family life to politics—societies consequently use complex processes of interaction rather than rules and authority. And just as rules and authority are clumsy, they are often also excessively compulsory. Interactive processes often make better use of information and intelligence than do rules and authority. In appropriate arenas, mutual adjustment provides unique advantages in coordination. It diffuses possibilities for bringing insights, information, and innovations into society, allowing information and ideas to enter the system at many points. Observe the flood of innovations, like wireless Internet, transforming computer communications worldwide. In a hierarchy, every centralist in the line of authority can veto any idea that comes up the ladder or from the outside, since it is the centralist’s responsibility to decide yes or no. In mutual adjustment, there is no centralist gatekeeper.

Both the scope and efficacy of mutually adjustable coordination are underrated. Consider the possibility that it is more frequent than coordination by an ostensible coordinator, whether the coordination is of spouses, drivers, acrobats, or negotiators in a wage dispute. Although, like central coordination, it of course often fails, it is the workhorse of social coordination in society as a whole.
Coordination in the Face of Scarcity

In the days before affluence multiplied the number of tourists swarming over Italy, it took little effort in coordination to accommodate those who wished to see the Michelangelo murals in the Sistine Chapel. Today this coordination requires regulated hours, tickets, and queues. When there is not enough of a given benefit to satisfy everyone, coordination, whether for cooperation or peacekeeping, becomes difficult yet all the more necessary. “Not enough” means that some go without and that almost no one is wholly satisfied. That is, some Vatican visitors will be rushed through the chapel while others will not even gain admittance. This is a major point about social coordination: when there is not enough of a benefit to go around, coordination imposes deprivation and consequently must cope with frustration, aggravated conflict, and sometimes rage.

For most objects and experiences to which people aspire, there is not enough to go around, whether the benefit is something intangible, like sightseeing opportunities in Rome, or something tangible, like bread. Not enough bread to go around? No, there is not. The shortage is disguised because society limits the number of people who ask for it: they must pay for it. Take away that constraint and the shortage would be obvious. Take away the legal rules that limit the kinds of disputes that can be taken to court, and a crippling shortage of judges would be apparent. Although some shortages are only too visible, most are obscured by constraining those who make requests or demands. Rules of eligibility—for example, entrance requirements for admission to college—are common constraints. Making people offer something in exchange is even more widespread a con-
straint. We become so accustomed to constraints that we forget that they exist only because of shortages and would not be necessary if there were enough to go around.

In fact, there is not enough to go around, not even in the wealthiest societies. Even those who seem to have everything are at least half aware that they could make use of more educational services for their children than even the best schools now provide and more medical services than any society yet offers, to say nothing of more personal services in the household, more chartered or owned aircraft, and more living space. For millions of less fortunate people all over the world, shortages are more obvious, and the world is far from able to bring these millions up to the level of the average Western European wage earner.

To denote the situation in which there is not enough to go around except by constraints on its availability, the common term is scarcity. It is a good term if we take care not to use it to mean a small amount of something or a few of something, which is one of its other meanings. And we must not use it to suggest niggardliness or to imply that nature is stingy. Scarcity does not mean a small amount but denotes a relation between aspiration and availability. Millions of square miles of fertile land are spread over the globe, but it nevertheless remains scarce—not enough to go around—because so many people aspire to cultivate it. Relatively few doorbell-ringing evangelists come to my neighborhood. But they are not scarce because so few householders want their ministrations. Opportunities to see the Sistine ceiling did not become scarce because the chapel shrank but because more people wanted to enter.

Finally, even if every member of society forswore further aspiration, maintaining his or her share of scarce things would require coordination. Without the sustaining pat-
terns of coordination long ago established, a society would backslide. It would be reduced to living on the simplest of diets in the crudest of shelters without either clean water or schools or much of anything else. The benefits we have today derive from already practiced cooperation; to retain them, the cooperation must be continued.