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THE COLLECTED WORKS OF  
F. A. Hayek

VOLUME XV

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THE MARKET AND  
OTHER ORDERS

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EDITED BY  
BRUCE CALDWELL



The University of Chicago Press

# THE COLLECTED WORKS OF F. A. HAYEK

F. A. HAYEK (1899–1992), recipient of the Presidential Medal of Freedom in 1991 and cowinner of the Nobel Memorial Prize in Economics in 1974, was a pioneer in monetary theory and a leading proponent of classical liberalism in the twentieth century. BRUCE CALDWELL is research professor of economics and the director of the Center for the History of Political Economy at Duke University. He is the author or editor of many books, including *Hayek's Challenge: An Intellectual Biography of F. A. Hayek*, also published by the University of Chicago Press.

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## CONTENTS

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Editorial Foreword	ix
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Introduction	1
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### *THE MARKET AND OTHER ORDERS*

Prologue: Kinds of Rationalism (1965)	39
---------------------------------------	----

#### *PART I. The Early Ideas*

One	Economics and Knowledge (1937)	57
Two	The Facts of the Social Sciences (1943)	78
Three	The Use of Knowledge in Society (1945)	93
Four	The Meaning of Competition (1948)	105

#### *PART II. From Chicago to Freiburg: Further Development*

Five	<i>The Political Ideal of the Rule of Law</i> (1955) Lecture I. Freedom and the Rule of Law: A Historical Survey	119 125
	Lecture II. Liberalism and Administration: The <i>Rechtsstaat</i>	143
	Lecture III. The Safeguards of Individual Liberty	160
	Lecture IV. The Decline of the Rule of Law	178
Six	Degrees of Explanation (1955)	195

Seven	The Economy, Science and Politics (1963)	213
Eight	Rules, Perception and Intelligibility (1962)	232
<i>PART III. A General Theory of Orders, with Applications</i>		
Nine	The Theory of Complex Phenomena (1964)	257
Ten	Notes on the Evolution of Systems of Rules of Conduct (1967)	278
Eleven	The Results of Human Action but Not of Human Design (1967)	293
Twelve	Competition as a Discovery Procedure (1968)	304
Thirteen	The Primacy of the Abstract (1969)	314
	APPENDIX: The Primacy of the Abstract—Discussion	328
Fourteen	The Errors of Constructivism (1970)	338
Fifteen	Nature vs. Nurture Once Again (1971)	357
Sixteen	The Pretence of Knowledge (1975)	362
Appendix A	A New Look at Economic Theory—Four Lectures Given at the University of Virginia, 1961	373
	Lecture I. The Object of Economic Theory	375
	Lecture II. The Economic Calculus	387
	Lecture III. Economics and Technology	402
	Lecture IV. The Communication Function of the Market	415
Appendix B	Economists and Philosophers—Walgreen Lecture, University of Chicago, 1963	427
Name Index		445
Subject Index		449

## EDITORIAL FOREWORD

This volume collects papers that span much of the career of Friedrich Hayek. Most of them are taken from three previous collections: *Individualism and Economic Order* (1948), *Studies in Philosophy, Politics and Economics* (1967), and *New Studies in Philosophy, Politics, Economics and the History of Ideas* (1978). I hope that the editor's introduction will make clear the rationale behind the selection.

Because Hayek's papers have appeared in both British and American publications, the question as to which conventions to follow regarding spelling and punctuation naturally arises. We have chosen to follow a "mixed system" that uses as a model the conventions followed in the 1967 *Studies* volume. Typographical errors have been silently corrected, as have minor inaccuracies in Hayek's quoting of others. More significant errors are noted. Because each of the chapters stands alone, the usual practice of providing a full reference at the first quotation and abbreviated ones thereafter holds only within each chapter.

I gratefully acknowledge the assistance of Jack Bladel, Eric Howard, Hansjoerg Klausinger, Jeremy Shearmur, and Michael Wohlgemuth in tracking down obscure references. Michaël Assous, Claire Caldwell, Hansjoerg Klausinger, John Lewis, and James Murphy translated passages from French, German, Latin, and Greek. Angela Zemonek, Sam Caldwell, and Matt Panhans aided me in preparing the final manuscript. Participants at the HOPE Workshop at Duke University in January 2012 provided comments on my editor's introduction. Faculty at the Advanced Austrian Economics seminar at the Foundation for Economic Education in August 2009, participants at the Fund for the Study of Spontaneous Orders meeting in February 2009 on "Manifestations of Spontaneous Order in Politics and Society", and Paul Lewis all provided comments on an earlier version. My thanks to them all.

I have been working on this manuscript for a number of years, and as a result, quite a few people at the University of Chicago Press have contributed to bringing it to press. My thanks to David Pervin, John Tryneski, Joe Jackson, Shenyun Wu, Rhonda Smith, Kelly Finefrock-Creed, and Carissa Vardanian for their good work and support.

other two events in human history. This particular period, or any other period, is, as such, no definite 'historical fact', no single historical object. According to our interests we can ask any number of different questions referring to this period and accordingly shall have to give different answers and shall have to construct different models of connected events. And this is what historians *do* at different times because they are interested in different questions. But as it is only the question that we ask which singles out, from the infinite variety of social events which we can find at any given time and place, a definite set of connected events which can be termed one historical fact, the experience that people give different answers to different questions does, of course, not prove that they hold different views about the same historical fact. There is no reason whatever, on the other hand, why historians at different times, but possessing the same information, should answer the same question differently. This alone, however, would justify the thesis about an inevitable relativity of historical knowledge.

I mention this because this historical relativism is a typical product of that so-called 'historicism' which is, in fact, a product of the misapplication of the scientific prejudice to historical phenomena—of the belief that social phenomena are ever given to us as the facts of nature are given to us. They are accessible to us only because we can understand what other people tell us and can be understood only by interpreting other people's intentions and plans. They are not physical facts, but the elements from which we reproduce them are always familiar categories of our own mind. Where we could no longer interpret what we know about other people by the analogy of our own mind, history would cease to be human history; it would then, indeed, have to run in purely behaviouristic terms such as the history we might write of an ant heap or the history an observer from Mars might write of the human race.

If this account of what the social sciences are actually doing appears to you as a description of a topsy-turvy world in which everything is in the wrong place, I beg you to remember that these disciplines deal with a world at which from our position we necessarily look in a different manner from that in which we look at the world of nature. To employ a useful metaphor: while at the world of nature we look from the outside, we look at the world of society from the inside; while, as far as nature is concerned, our concepts are about the facts and have to be adapted to the facts, in the world of society at least some of the most familiar concepts are the stuff from which that world is made. Just as the existence of a common structure of thought is the condition of the possibility of our communicating with one another, of your understanding what I say, so it is also the basis on which we all interpret such complicated social structures as those which we find in economic life or law, in language, and in customs.

## THE USE OF KNOWLEDGE IN SOCIETY<sup>1</sup>

### I

What is the problem we wish to solve when we try to construct a rational economic order? On certain familiar assumptions the answer is simple enough. If we possess all the relevant information, if we can start out from a given system of preferences, and if we command complete knowledge of available means, the problem which remains is purely one of logic. That is, the answer to the question of what is the best use of the available means is implicit in our assumptions. The conditions which the solution of this optimum problem must satisfy have been fully worked out and can be stated best in mathematical form: put at their briefest, they are that the marginal rates of substitution between any two commodities or factors must be the same in all their different uses.

This, however, is emphatically *not* the economic problem which society faces. And the economic calculus which we have developed to solve this logical problem, though an important step towards the solution of the economic problem of society, does not yet provide an answer to it. The reason for this is that the 'data' from which the economic calculus starts are never for the whole society 'given' to a single mind which could work out the implications, and can never be so given.

The peculiar character of the problem of a rational economic order is determined precisely by the fact that the knowledge of the circumstances of which we must make use never exists in concentrated or integrated form but solely as the dispersed bits of incomplete and frequently contradictory knowledge which all the separate individuals possess. The economic problem of society is thus not merely a problem of how to allocate 'given' resources—if 'given' is taken to mean given to a single mind which deliberately solves the problem set by these 'data.' It is rather a problem of how to secure the best use of resources known to any of the members of society, for ends whose relative

<sup>1</sup> Reprinted from the *American Economic Review*, vol. 35, September 1945, pp. 519–30. [This essay was reprinted in F. A. Hayek, *Individualism and Economic Order* (Chicago: University of Chicago Press, 1948), pp. 77–91.—Ed.]

importance only these individuals know. Or, to put it briefly, it is a problem of the utilization of knowledge which is not given to anyone in its totality.

This character of the fundamental problem has, I am afraid, been obscured rather than illuminated by many of the recent refinements of economic theory, particularly by many of the uses made of mathematics. Though the problem with which I want primarily to deal in this paper is the problem of a rational economic organization, I shall in its course be led again and again to point to its close connections with certain methodological questions. Many of the points I wish to make are indeed conclusions towards which diverse paths of reasoning have unexpectedly converged. But, as I now see these problems, this is no accident. It seems to me that many of the current disputes with regard to both economic theory and economic policy have their common origin in a misconception about the nature of the economic problem of society. This misconception in turn is due to an erroneous transfer to social phenomena of the habits of thought we have developed in dealing with the phenomena of nature.

## II

In ordinary language we describe by the word 'planning' the complex of inter-related decisions about the allocation of our available resources. All economic activity is in this sense planning; and in any society in which many people collaborate, this planning, whoever does it, will in some measure have to be based on knowledge which, in the first instance, is not given to the planner but to somebody else, which somehow will have to be conveyed to the planner. The various ways in which the knowledge on which people base their plans is communicated to them is the crucial problem for any theory explaining the economic process, and the problem of what is the best way of utilizing knowledge initially dispersed among all the people is at least one of the main problems of economic policy—or of designing an efficient economic system.

The answer to this question is closely connected with that other question which arises here, that of *who* is to do the planning. It is about this question that all the dispute about 'economic planning' centers. This is not a dispute about whether planning is to be done or not. It is a dispute as to whether planning is to be done centrally, by one authority for the whole economic system, or is to be divided among many individuals. Planning in the specific sense in which the term is used in contemporary controversy necessarily means central planning—direction of the whole economic system according to one unified plan. Competition, on the other hand, means decentralized planning by many separate persons. The half-way house between the two, about which many people talk but which few like when they see it, is the delegation of planning to organized industries, or, in other words, monopolies.

Which of these systems is likely to be more efficient depends mainly on the question under which of them we can expect that fuller use will be made of the existing knowledge. This, in turn, depends on whether we are more likely to succeed in putting at the disposal of a single central authority all the knowledge which ought to be used but which is initially dispersed among many different individuals, or in conveying to the individuals such additional knowledge as they need in order to enable them to dovetail their plans with those of others.

## III

It will at once be evident that on this point the position will be different with respect to different kinds of knowledge. The answer to our question will therefore largely turn on the relative importance of the different kinds of knowledge; those more likely to be at the disposal of particular individuals and those which we should with greater confidence expect to find in the possession of an authority made up of suitably chosen experts. If it is today so widely assumed that the latter will be in a better position, this is because one kind of knowledge, namely, scientific knowledge, occupies now so prominent a place in public imagination that we tend to forget that it is not the only kind that is relevant. It may be admitted that, as far as scientific knowledge is concerned, a body of suitably chosen experts may be in the best position to command all the best knowledge available—though this is of course merely shifting the difficulty to the problem of selecting the experts. What I wish to point out is that, even assuming that this problem can be readily solved, it is only a small part of the wider problem.

Today it is almost heresy to suggest that scientific knowledge is not the sum of all knowledge. But a little reflection will show that there is beyond question a body of very important but unorganized knowledge which cannot possibly be called scientific in the sense of knowledge of general rules: the knowledge of the particular circumstances of time and place. It is with respect to this that practically every individual has some advantage over all others because he possesses unique information of which beneficial use might be made, but of which use can be made only if the decisions depending on it are left to him or are made with his active co-operation. We need to remember only how much we have to learn in any occupation after we have completed our theoretical training, how big a part of our working life we spend learning particular jobs, and how valuable an asset in all walks of life is knowledge of people, of local conditions, and of special circumstances. To know of and put to use a machine not fully employed, or somebody's skill which could be better utilized, or to be aware of a surplus stock which can be drawn upon during an interruption of supplies, is socially quite as useful as the knowledge

of better alternative techniques. The shipper who earns his living from using otherwise empty or half-filled journeys of tramp-steamers, or the estate agent whose whole knowledge is almost exclusively one of temporary opportunities, or the *arbitrageur* who gains from local differences of commodity prices—are all performing eminently useful functions based on special knowledge of circumstances of the fleeting moment not known to others.

It is a curious fact that this sort of knowledge should today be generally regarded with a kind of contempt and that anyone who by such knowledge gains an advantage over somebody better equipped with theoretical or technical knowledge is thought to have acted almost disreputably. To gain an advantage from better knowledge of facilities of communication or transport is sometimes regarded as almost dishonest, although it is quite as important that society make use of the best opportunities in this respect as in using the latest scientific discoveries. This prejudice has in a considerable measure affected the attitude towards commerce in general compared with that towards production. Even economists who regard themselves as definitely immune to the crude materialist fallacies of the past constantly commit the same mistake where activities directed towards the acquisition of such practical knowledge are concerned—apparently because in their scheme of things all such knowledge is supposed to be ‘given.’ The common idea now seems to be that all such knowledge should as a matter of course be readily at the command of everybody, and the reproach of irrationality levelled against the existing economic order is frequently based on the fact that it is not so available. This view disregards the fact that the method by which such knowledge can be made as widely available as possible is precisely the problem to which we have to find an answer.

#### IV

If it is fashionable today to minimize the importance of the knowledge of the particular circumstances of time and place, this is closely connected with the smaller importance which is now attached to change as such. Indeed, there are few points on which the assumptions made (usually only implicitly) by the ‘planners’ differ from those of their opponents as much as with regard to the significance and frequency of changes which will make substantial alterations of production plans necessary. Of course, if detailed economic plans could be laid down for fairly long periods in advance and then closely adhered to, so that no further economic decisions of importance would be required, the task of drawing up a comprehensive plan governing all economic activity would be much less formidable.

It is, perhaps, worth stressing that economic problems arise always and only in consequence of change. As long as things continue as before, or at least

as they were expected to, there arise no new problems requiring a decision, no need to form a new plan. The belief that changes, or at least day-to-day adjustments, have become less important in modern times implies the contention that economic problems also have become less important. This belief in the decreasing importance of change is, for that reason, usually held by the same people who argue that the importance of economic considerations has been driven into the background by the growing importance of technological knowledge.

Is it true that, with the elaborate apparatus of modern production, economic decisions are required only at long intervals, as when a new factory is to be erected or a new process to be introduced? Is it true that, once a plant has been built, the rest is all more or less mechanical, determined by the character of the plant, and leaving little to be changed in adapting to the ever changing circumstances of the moment?

The fairly widespread belief in the affirmative is not, as far as I can ascertain, borne out by the practical experience of the business man. In a competitive industry at any rate—and such an industry alone can serve as a test—the task of keeping cost from rising requires constant struggle, absorbing a great part of the energy of the manager. How easy it is for an inefficient manager to dissipate the differentials on which profitability rests and that it is possible, with the same technical facilities, to produce with a great variety of costs are among the commonplaces of business experience which do not seem to be equally familiar in the study of the economist. The very strength of the desire, constantly voiced by producers and engineers, to be allowed to proceed untrammeled by considerations of money costs, is eloquent testimony to the extent to which these factors enter into their daily work.

One reason why economists are increasingly apt to forget about the constant small changes which make up the whole economic picture is probably their growing preoccupation with statistical aggregates, which show a very much greater stability than the movements of the detail. The comparative stability of the aggregates cannot, however, be accounted for—as the statisticians occasionally seem to be inclined to do—by the ‘law of large numbers’ or the mutual compensation of random changes. The number of elements with which we have to deal is not large enough for such accidental forces to produce stability. The continuous flow of goods and services is maintained by constant deliberate adjustments, by new dispositions made every day in the light of circumstances not known the day before, by B stepping in at once when A fails to deliver. Even the large and highly mechanized plant keeps going largely because of an environment upon which it can draw for all sorts of unexpected needs: tiles for its roof, stationery for its forms, and all the thousand and one kinds of equipment in which it cannot be self-contained and which the plans for the operation of the plant require to be readily available in the market.

This is, perhaps, also the point where I should briefly mention the fact that the sort of knowledge with which I have been concerned is knowledge of the kind which by its nature cannot enter into statistics and therefore cannot be conveyed to any central authority in statistical form. The statistics which such a central authority would have to use would have to be arrived at precisely by abstracting from minor differences between the things, by lumping together, as resources of one kind, items which differ as regards location, quality, and other particulars, in a way which may be very significant for the specific decision. It follows from this that central planning based on statistical information by its nature cannot take direct account of these circumstances of time and place and that the central planner will have to find some way or other in which the decisions depending on them can be left to the 'man on the spot.'

## V

If we can agree that the economic problem of society is mainly one of rapid adaptation to changes in the particular circumstances of time and place, it would seem to follow that the ultimate decisions must be left to the people who are familiar with these circumstances, who know directly of the relevant changes and of the resources immediately available to meet them. We cannot expect that this problem will be solved by first communicating all this knowledge to a central board which, after integrating all knowledge, issues its orders. We must solve it by some form of decentralization. But this answers only part of our problem. We need decentralization because only thus can we ensure that the knowledge of the particular circumstances of time and place will be promptly used. But the 'man on the spot' cannot decide solely on the basis of his limited but intimate knowledge of the facts of his immediate surroundings. There still remains the problem of communicating to him such further information as he needs to fit his decisions into the whole pattern of changes of the larger economic system.

How much knowledge does he need to do so successfully? Which of the events which happen beyond the horizon of his immediate knowledge are of relevance to his immediate decision, and how much of them need he know?

There is hardly anything that happens anywhere in the world that *might* not have an effect on the decision he ought to make. But he need not know of these events as such, nor of *all* their effects. It does not matter for him *why* at the particular moment more screws of one size than of another are wanted, *why* paper bags are more readily available than canvas bags, or *why* skilled labour, or particular machine tools, have for the moment become more difficult to obtain. All that is significant for him is *how much more or less* difficult to procure they have become compared with other things with which he is also

concerned, or how much more or less urgently wanted are the alternative things he produces or uses. It is always a question of the relative importance of the particular things with which he is concerned, and the causes which alter their relative importance are of no interest to him beyond the effect on those concrete things of his own environment.

It is in this connection that what I have called the 'economic calculus' (or the Pure Logic of Choice) helps us, at least by analogy, to see how this problem can be solved, and in fact is being solved, by the price system. Even the single controlling mind, in possession of all the data for some small, self-contained economic system, would not—every time some small adjustment in the allocation of resources had to be made—go explicitly through all the relations between ends and means which might possibly be affected. It is indeed the great contribution of the Pure Logic of Choice that it has demonstrated conclusively that even such a single mind could solve this kind of problem only by constructing and constantly using rates of equivalence (or 'values', or 'marginal rates of substitution'), that is, by attaching to each kind of scarce resource a numerical index which cannot be derived from any property possessed by that particular thing, but which reflects, or in which is condensed, its significance in view of the whole means-end structure. In any small change he will have to consider only these quantitative indices (or 'values') in which all the relevant information is concentrated; and, by adjusting the quantities one by one, he can appropriately rearrange his dispositions without having to solve the whole puzzle *ab initio* or without needing at any stage to survey it at once in all its ramifications.

Fundamentally, in a system in which the knowledge of the relevant facts is dispersed among many people, prices can act to co-ordinate the separate actions of different people in the same way as subjective values help the individual to co-ordinate the parts of his plan. It is worth contemplating for a moment a very simple and commonplace instance of the action of the price system to see what precisely it accomplishes. Assume that somewhere in the world a new opportunity for the use of some raw material, say, tin, has arisen, or that one of the sources of supply of tin has been eliminated. It does not matter for our purpose—and it is significant that it does not matter—which of these two causes has made tin more scarce. All that the users of tin need to know is that some of the tin they used to consume is now more profitably employed elsewhere, and that, in consequence, they must economize tin. There is no need for the great majority of them even to know where the more urgent need has arisen, or in favour of what other needs they ought to husband the supply. If only some of them know directly of the new demand, and switch resources over to it, and if the people who are aware of the new gap thus created in turn fill it from still other sources, the effect will rapidly spread throughout the whole economic system and influence not only all the uses of tin but also

those of its substitutes and the substitutes of these substitutes, the supply of all the things made of tin, and their substitutes, and so on; and all this without the great majority of those instrumental in bringing about these substitutions knowing anything at all about the original cause of these changes. The whole acts as one market, not because any of its members survey the whole field, but because their limited individual fields of vision sufficiently overlap so that through many intermediaries the relevant information is communicated to all. The mere fact that there is one price for any commodity—or rather that local prices are connected in a manner determined by the cost of transport, etc.—brings about the solution which (it is just conceptually possible) might have been arrived at by one single mind possessing all the information which is in fact dispersed among all the people involved in the process.

## VI

We must look at the price system as such a mechanism for communicating information if we want to understand its real function—a function which, of course, it fulfills less perfectly as prices grow more rigid. (Even when quoted prices have become quite rigid, however, the forces which would operate through changes in price still operate to a considerable extent through changes in the other terms of the contract.) The most significant fact about this system is the economy of knowledge with which it operates, or how little the individual participants need to know in order to be able to take the right action. In abbreviated form, by a kind of symbol, only the most essential information is passed on and passed on only to those concerned. It is more than a metaphor to describe the price system as a kind of machinery for registering change, or a system of telecommunications which enables individual producers to watch merely the movement of a few pointers, as an engineer might watch the hands of a few dials, in order to adjust their activities to changes of which they may never know more than is reflected in the price movement.

Of course, these adjustments are probably never ‘perfect’ in the sense in which the economist conceives of them in his equilibrium analysis. But I fear that our theoretical habits of approaching the problem with the assumption of more or less perfect knowledge on the part of almost everyone has made us somewhat blind to the true function of the price mechanism and led us to apply rather misleading standards in judging its efficiency. The marvel is that in a case like that of a scarcity of one raw material, without an order being issued, without more than perhaps a handful of people knowing the cause, tens of thousands of people whose identity could not be ascertained by months of investigation, are made to use the material or its products more sparingly; that is, they move in the right direction. This is enough of a marvel

even if, in a constantly changing world, not all will hit it off so perfectly that their profit rates will always be maintained at the same even or ‘normal’ level.

I have deliberately used the word ‘marvel’ to shock the reader out of the complacency with which we often take the working of this mechanism for granted. I am convinced that if it were the result of deliberate human design, and if the people guided by the price changes understood that their decisions have significance far beyond their immediate aim, this mechanism would have been acclaimed as one of the greatest triumphs of the human mind. Its misfortune is the double one that it is not the product of human design and that the people guided by it usually do not know why they are made to do what they do. But those who clamor for ‘conscious direction’—and who cannot believe that anything which has evolved without design (and even without our understanding it) should solve problems which we should not be able to solve consciously—should remember this: The problem is precisely how to extend the span of our utilization of resources beyond the span of the control of any one mind; and, therefore, how to dispense with the need of conscious control and how to provide inducements which will make the individuals do the desirable things without anyone having to tell them what to do.

The problem which we meet here is by no means peculiar to economics but arises in connection with nearly all truly social phenomena, with language and with most of our cultural inheritance, and constitutes really the central theoretical problem of all social science. As Alfred Whitehead has said in another connection, “It is a profoundly erroneous truism, repeated by all copy-books and by eminent people when they are making speeches, that we should cultivate the habit of thinking of what we are doing. The precise opposite is the case. Civilization advances by extending the number of important operations which we can perform without thinking about them.”<sup>2</sup> This is of profound significance in the social field. We make constant use of formulas, symbols, and rules whose meaning we do not understand and through the use of which we avail ourselves of the assistance of knowledge which individually we do not possess. We have developed these practices and institutions by building upon habits and institutions which have proved successful in their own sphere and which have in turn become the foundation of the civilization we have built up.

The price system is just one of those formations which man has learned to use (though he is still very far from having learned to make the best use of it) after he had stumbled upon it without understanding it. Through it not only a division of labour but also a co-ordinated utilization of resources based on an

<sup>2</sup> [Alfred North Whitehead (1861–1947) was a British philosopher, logician, and mathematician whose writings ranged from the monumental *Principia Mathematica* (1910–1913) with Bertrand Russell, to the popular *Science and the Modern World* (1925). The quote is from his *Introduction to Mathematics* (London: Williams and Norgate, 1911), p. 61. Hayek used part of the quote again at the head of chapter 2 of *The Constitution of Liberty*.—Ed.]

equally divided knowledge has become possible. The people who like to deride any suggestion that this may be so usually distort the argument by insinuating that it asserts that by some miracle just that sort of system has spontaneously grown up which is best suited to modern civilization. It is the other way round: man has been able to develop that division of labour on which our civilization is based because he happened to stumble upon a method which made it possible. Had he not done so, he might still have developed some other, altogether different, type of civilization, something like the 'state' of the termite ants, or some other altogether unimaginable type. All that we can say is that nobody has yet succeeded in designing an alternative system in which certain features of the existing one can be preserved which are dear even to those who most violently assail it—such as particularly the extent to which the individual can choose his pursuits and consequently freely use his own knowledge and skill.

## VII

It is in many ways fortunate that the dispute about the indispensability of the price system for any rational calculation in a complex society is now no longer conducted entirely between camps holding different political views. The thesis that without the price system we could not preserve a society based on such extensive division of labour as ours was greeted with a howl of derision when it was first advanced by von Mises twenty-five years ago.<sup>3</sup> Today the difficulties which some still find in accepting it are no longer mainly political, and this makes for an atmosphere much more conducive to reasonable discussion. When we find Leon Trotsky arguing that "economic accounting is unthinkable without market relations"; when Professor Oskar Lange promises Professor von Mises a statue in the marble halls of the future Central Planning Board; and when Professor Abba P. Lerner rediscovers Adam Smith and emphasizes that the essential utility of the price system consists in inducing the individual, while seeking his own interest, to do what is in the general interest, the differences can indeed no longer be ascribed to political prejudice.<sup>4</sup> The remaining

<sup>3</sup>[Hayek refers to Ludwig von Mises's classic article, "Die Wirtschaftsrechnung im sozialistischen Gemeinwesen", *Archiv für Sozialwissenschaft*, vol. 47, 1920, pp. 86–121, translated by S. Adler as "Economic Calculation in the Socialist Commonwealth", in *Collectivist Economic Planning: Critical Studies on the Possibilities of Socialism*, ed. F. A. Hayek (London: Routledge and Sons, 1935; reprinted, Clifton: NJ: Kelley, 1975), pp. 87–130.—Ed.]

<sup>4</sup>[Russian revolutionary leader and Marxist theorist Leon Trotsky (1879–1940) penned these words for an article published in 1932 in *The Militant* titled "The Soviet Economy in Danger", now reprinted in *Writings of Leon Trotsky—1932* (New York: Pathfinder Press, 1973), p. 276. Polish economist Oskar Lange (1904–1965) was a leading proponent of market socialism, a doctrine which purported to combine the efficiency characteristics of a competitive market regime with the redistributive aims of socialism. Acknowledging Mises's insight about the importance of

dissent seems clearly to be due to purely intellectual, and more particularly methodological, differences.

A recent statement by Joseph Schumpeter in his *Capitalism, Socialism and Democracy* provides a clear illustration of one of the methodological differences which I have in mind. Its author is pre-eminent among those economists who approach economic phenomena in the light of a certain branch of positivism. To him these phenomena accordingly appear as objectively given quantities of commodities impinging directly upon each other, almost, it would seem, without any intervention of human minds. Only against this background can I account for the following (to me startling) pronouncement. Professor Schumpeter argues that the possibility of a rational calculation in the absence of markets for the factors of production follows for the theorist "from the elementary proposition that consumers in evaluating ('demanding') consumers' goods *ipso facto* also evaluate the means of production which enter into the production of those goods."<sup>5</sup>

Taken literally, this statement is simply untrue. The consumers do nothing of the kind. What Professor Schumpeter's "*ipso facto*" presumably means is that the valuation of the factors of production is implied in, or follows necessarily from, the valuation of consumers' goods. But this, too, is not correct. Implication is a logical relationship which can be meaningfully asserted only

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prices as a tool for the rational allocation of resources, Lange proposed the erection of a statue in "On the Economic Theory of Socialism", in *On the Economic Theory of Socialism*, ed. Benjamin E. Lippincott (Minneapolis: University of Minnesota Press; reprinted, New York: McGraw Hill, 1956), pp. 57–58. In *The Economics of Control* (New York: Macmillan, 1944; reprinted, New York: Kelley, 1970), p. 67, the market socialist Abba Lerner (1905–1982) said about the price mechanism, "If it is appropriately used it induces each member of society, while seeking his own benefit, to do that which is in the general social interest. Fundamentally this is the great discovery of Adam Smith and the Physiocrats."—Ed.]

<sup>5</sup>Joseph Schumpeter, *Capitalism, Socialism and Democracy* (New York: Harper, 1942), p. 175. Professor Schumpeter is, I believe, also the original author of the myth that Pareto and Barone have 'solved' the problem of socialist calculation. What they, and many others, did was merely to state the conditions which a rational allocation of resources would have to satisfy and to point out that these were essentially the same as the conditions of equilibrium of a competitive market. This is something altogether different from showing how the allocation of resources satisfying these conditions can be found in practice. Pareto himself (from whom Barone has taken practically everything he has to say), far from claiming to have solved the practical problem, in fact explicitly denies that it can be solved without the help of the market. See his *Manuel d'économie politique*, translated by Alfred Bonnet, 2nd ed. (Paris: Marcel Giard, 1927), pp. 233–34. The relevant passage is quoted in an English translation at the beginning of my article on "Socialist Calculation: The Competitive 'Solution'", in *Economica*, n.s., vol. 8, May 1940, p. 125. [Cf. Hayek, "Socialist Calculation: The Competitive 'Solution'", in *Socialism and War*, ed. Bruce Caldwell, vol. 10 (1997) of *The Collected Works of F. A. Hayek* (Chicago: University of Chicago Press; London: Routledge), chapter 3, pp. 117–18. See also Vilfredo Pareto, *Manual of Political Economy*, ed. Ann S. Schwier and Alfred N. Page, translated by Ann S. Schwier (New York: Kelley, 1971). The passage Hayek refers to appears on p. 171.—Ed.]

of propositions simultaneously present to one and the same mind. It is evident, however, that the values of the factors of production do not depend solely on the valuation of the consumers' goods but also on the conditions of supply of the various factors of production. Only to a mind to which all these facts were simultaneously known would the answer necessarily follow from the facts given to it. The practical problem, however, arises precisely because these facts are never so given to a single mind, and because, in consequence, it is necessary that in the solution of the problem knowledge should be used that is dispersed among many people.

The problem is thus in no way solved if we can show that all the facts, if they were known to a single mind (as we hypothetically assume them to be given to the observing economist), would uniquely determine the solution; instead we must show how a solution is produced by the interactions of people each of whom possesses only partial knowledge. To assume all the knowledge to be given to a single mind in the same manner in which we assume it to be given to us as the explaining economists is to assume the problem away and to disregard everything that is important and significant in the real world.

That an economist of Professor Schumpeter's standing should thus have fallen into a trap which the ambiguity of the term 'datum' sets to the unwary can hardly be explained as a simple error. It suggests rather that there is something fundamentally wrong with an approach which habitually disregards an essential part of the phenomena with which we have to deal: the unavoidable imperfection of man's knowledge and the consequent need for a process by which knowledge is constantly communicated and acquired. Any approach, such as that of much of mathematical economics with its simultaneous equations, which in effect starts from the assumption that people's *knowledge* corresponds with the objective *facts* of the situation, systematically leaves out what is our main task to explain. I am far from denying that in our system equilibrium analysis has a useful function to perform. But when it comes to the point where it misleads some of our leading thinkers into believing that the situation which it describes has direct relevance to the solution of practical problems, it is high time that we remember that it does not deal with the social process at all and that it is no more than a useful preliminary to the study of the main problem.

## THE MEANING OF COMPETITION<sup>1</sup>

### I

There are signs of increasing awareness among economists that what they have been discussing in recent years under the name of 'competition' is not the same thing as what is thus called in ordinary language. But, although there have been some valiant attempts to bring discussion back to earth and to direct attention to the problems of real life, notably by J. M. Clark and Fritz Machlup,<sup>2</sup> the general view seems still to regard the conception of competition currently employed by economists as the significant one and to treat that of the businessman as an abuse. It appears to be generally held that the so-called theory of 'perfect competition' provides the appropriate model for judging the effectiveness of competition in real life and that, to the extent that real competition differs from that model, it is undesirable and even harmful.

For this attitude there seems to me to exist very little justification. I shall attempt to show that what the theory of perfect competition discusses has little claim to be called 'competition' at all and that its conclusions are of little use as guides to policy. The reason for this seems to me to be that this theory throughout assumes that state of affairs already to exist which, according to the truer view of the older theory, the process of competition tends to bring about (or to approximate) and that, if the state of affairs assumed by the theory of perfect competition ever existed, it would not only deprive of their scope all the activities which the verb 'to compete' describes but would make them virtually impossible.

If all this affected only the use of the word 'competition', it would not matter a great deal. But it seems almost as if economists by this peculiar use of

<sup>1</sup>This essay reproduces the substance of the Stafford Little Lecture delivered at Princeton University on May 20, 1946. [This essay was reprinted in F. A. Hayek, *Individualism and Economic Order* (Chicago: University of Chicago Press, 1948), pp. 92–106.—Ed.]

<sup>2</sup>J. M. Clark, "Toward a Concept of Workable Competition", *American Economic Review*, vol. 30, June 1940, pp. 241–56; Fritz Machlup, "Competition, Pliopoly, and Profit", *Economica*, n.s., vol. 9, February and May, 1942, pp. 1–23, 153–73.