HUMAN ACTION

by **Ludwig von Mises**

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PART THREE
ACTION WITHIN THE FRAMEWORK OF SOCIETY
XI. Valuation Without Calculation

1. The Gradation of the Means

Acting man transfers the valuation of ends he aims at to the means.

Other things being equal, he assigns to the total amount of the various means the same value he attaches to the end which they are fit to bring about. For the moment we may disregard the time needed for production of the end and its influence upon the relation between the value of the ends and that of the means.

The gradation of the means is like that of the ends a process of preferring *a* to *b*. It is preferring and setting aside. It is manifestation of a judgment that *a* is more intensely desired than is *b*. It opens a field for application of ordinal numbers, but it is not open to application of cardinal numbers and arithmetical operations based on them. If somebody gives me the choice among three tickets entitling one to attend to operas *Aida*, *Falstaff*, and *Traviata* and I take, if I can only take one of them, *Aida*, and if I can take one more, *Falstaff* also, I have made a choice. That means: under given conditions I prefer *Aida* and *Falstaff* to *Traviata*; if I could only choose one of them, I would prefer *Aida* and renounce *Falstaff*. If I call the admission to *Aida a*, that to *Falstaff b* and that to *Traviata c*, I can say: I prefer *a* to *b* and *b* to *c*.

The immediate goal of acting is frequently the acquisition of countable and measurable supplies of tangible things. Then acting man has to choose between countable quantities; he prefers, for example, 15*r* to 7*p*; but if he had to choose between 15*r* and 8*p*, he might prefer 8*p*. We can express this state of affairs by declaring that he values 15*r* less than 8*p*, but higher than 7*p*. This is tantamount to the statement that he prefers *a* to *b* and *b* to *c*. The substitution of 8*p* for *a*, of 15*r* for *b* and of 7*p* for *c* changes neither the meaning of the statement nor the fact that it describes. It certainly does not render reckoning with cardinal numbers possible. It does not open a field for economic calculation and the mental operations based upon such calculation.

2. The Barter-Fiction of the Elementary Theory of Value and Prices

The elaboration of economic theory is heuristically dependent on the logical processes of reckoning to such an extent that the economists failed to realize the fundamental problem involved in the methods of economic calculation. They were prone to take economic calculation as a matter of course; they did not see that it is not an ultimate given, but a derivative requiring reduction to more elementary phenomena. They misconstrued economic calculation. They took it for a category of all human action and ignored the fact that it is only a category inherent in acting under special conditions. They were fully aware of the fact that interpersonal exchange, and consequently market exchange effected by the intermediary of a common medium of exchange--money, and therefore prices, are special features of a certain state of society's economic organization which did not exist in primitive civilizations and could possibly disappear in the further course of historical change[1]. But they did not comprehend that money prices are the only vehicle of economic calculation. Thus most of their studies are of little use. Even the writings of the most eminent economists are vitiated to some extent by the fallacies implied in their ideas about economic calculation.

The modern theory of value and prices shows how the choices of individuals, their preferring of some things and setting aside of other things, result, in the sphere of interpersonal exchange, in the emergence of market prices[2]. These masterful expositions are unsatisfactory in some minor points and disfigured by unsuitable expressions. But they are essentially irrefutable. As far as they need to be amended, it must be done by a consistent elaboration of the fundamental thoughts of their authors rather than by a refutation of their reasoning.

In order to trace back the phenomena of the market to the universal category of preferring *a* to *b*, the elementary theory of value and prices is bound to use some imaginary constructions. The use of imaginary constructions to which nothing corresponds in reality is an indispensable tool of thinking. No other method would have contributed anything to the interpretation of reality. But one of the most important problems of science is to avoid the fallacies which ill-considered employment of such constructions can entail.

The elementary theory of value and prices employs, apart from other imaginary constructions to be dealt with later[3], the construction of a market in which all transactions are performed in direct exchange. There is no money; goods and services are directly bartered against other goods and services. this imaginary construction is necessary. One must disregard the intermediary role played by

[1] The German Historical School expressed this by asserting that private ownership of the means of production, market exchange, and money are "historical categories."
[2] Cf. especially Eugen von Bohm-Bawerk, *Kapital und Kapitalzins,* Pt. II, Bk. III.
[3] See below, pp. 236-256.

money in order to realize that what is ultimately exchanged is always economic goods of the first order against other such goods. Money is nothing but a medium of interpersonal exchange. But one must carefully guard oneself against the delusions which this construction of a market with direct exchange can easily engender.

A serious blunder that owes its origin and its tenacity to a misinterpretation of this imaginary construction was the assumption that the medium of exchange is a neutral factor only. According to this opinion the only difference between direct and indirect exchange was that only in the latter was a medium of exchange used. The interpolation of money into the transaction, it was asserted, did not affect the main features of the business. One did not ignore the fact that in the course of history tremendous alterations in the purchasing power of money have occurred and that these fluctuations often convulsed the whole system of exchange. But it was believed that such events were exceptional facts caused by inappropriate policies. Only "bad" money, it was said, can bring about such disarrangements. In addition people misunderstood the causes and effects of these disturbances. They tacitly assumed that changes in purchasing power occur with regard to all goods and services at the same time and to the same extent. This is, of course, what the fable of money's neutrality implies. The whole theory of catallactics, it was held, can be elaborated under the assumption that there is direct exchange only. If this is once achieved, the only thing to be added is the "simple" insertion of money terms into the complex of theorems concerning direct exchange. However, this final completion of the catallactic system was considered of minor importance only. It was not believed that it could alter anything essential in the structure of economic teachings. The main task of economics was conceived as the study of direct exchange. What remained to be done besides this was at best only a scrutiny of the problems of "bad" money.

Complying with this opinion, economists neglected to lay due stress upon the problems of indirect exchange. Their treatment of monetary problems was superficial; it was only loosely connected with the main body of their scrutiny of the market process. About the beginning of the twentieth century the problems of indirect exchange were by and large relegated to a subordinate place. There were treatises on catallactics which dealt only incidentally and cursorily with monetary matters, and there were books on currency and banking which did not even attempt to integrate their subject into the structure of a catallactic system. At the universities of the Anglo-Saxon countries there were separate chairs for economics and for currency and banking, and at most of the German universities monetary problems were almost entirely disregarded[4]. Only later economists

[4] Neglect of the problems of indirect exchange was certainly influenced by political prepossessions. People did not want to give up the thesis according to which economic depressions are an evil inherent in the capitalist

realized that some of the most important and most intricate problems of catallactics are to be found in the field of indirect exchange and that an economic theory which does not pay full regard to them is lamentably defective. The coming into vogue of investigations concerning the relation between the "natural rate of interest" and the "money rate of interest," the ascendancy of the monetary theory of the trade cycle, and the entire demolition of the doctrine of the simultaneousness and evenness of the changes in the purchasing power of money were marks of the new tenor of economic thought. Of course, these new ideas were essentially a continuation of the work gloriously begun by David Hume, the British Currency School, John Stuart Mill and Cairnes.

Still more detrimental was a second error which emerged from the careless use of the imaginary construction of a market with direct exchange.

An inveterate fallacy asserted that things and services exchanged are of equal value. Value was considered as objective, as an intrinsic quality inherent in things and not merely as the expression of various people's eagerness to acquire them. People, it was assumed, first established the magnitude of value proper to goods and services by an act of measurement and then proceeded to barter them against quantities of goods and services of the same amount of value. This fallacy frustrated Aristotle's approach to economic problems and, for almost two thousand years, the reasoning of all those for whom Aristotle's opinions were authoritative. It seriously vitiated the marvelous achievements of the classical economists and rendered the writings of their epigones, especially those of Marx and the Marxian school, entirely futile. The basis of modern economics is the cognition that it is precisely the disparity in the value attached to the objects exchanged that results in their being exchanged. People buy and sell only because they appraise the things given up less than those received. Thus the notion of a measurement of value is vain. An act of exchange is neither preceded nor accompanied by any process which could be called a measuring of value. An individual may attach the same value to two things; but then no exchange can result. But if there is a diversity in valuation, all that can be asserted with regard to it is that one *a* is valued higher, that it is preferred to one *b*. Values and valuations are intensive quantities and not extensive quantities. They are not susceptible to mental grasp by the application of cardinal numbers.

However, the spurious idea that values are measurable and are really measured in the conduct of economic transactions was so deeply rooted that even eminent economists fell victim to the fallacy implied. Even Friedrich von Wieser and

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mode of production and are in no way caused by attempts to lower the rate of interest by credit expansion. Fashionable teachers of economics deemed it "unscientific" to explain depressions as a phenomenon originating "only" out of events in the sphere of money and credit. There were even surveys of the history of business cycle theory which omitted any discussion of the monetary thesis. Cf., e.g., Eugen von Bergmann, *Geschichte der nationalokonomischen Krisentheorien* (Stuttgart, 1895).

Irving Fisher took it for granted that there must be something like measurement of value and that economics must be able to indicate and to explain the method by which such measurement is effected[5]. Most of the lesser economists simply maintained that money serves "as a measure of values."

Now, we must realize that valuing means to prefer *a* to *b*. There is --logically, epistemologically, psychologically, and praxeologically--only one pattern of preferring. It does not friend to other people, an amateur one painting to other paintings, or a consumer a loaf of bread to a piece of candy. Preferring always means to love or to desire *a* more than *b*. Just as there is no standard and no measurement of sexual love, of friendship and sympathy, and of aesthetic enjoyment, so there is no measurement of the value of commodities. If a man exchanges two pounds of butter for a shirt, all that we can assert with regard to this transaction is that he--at the instant of the transaction and under the conditions which this instant offers to him--prefers one shirt to two pounds of butter. It is certain that every act of preferring is characterized by a definite psychic intensity of the feelings it implies. There are grades in the intensity of the desire to attain a definite goal and this intensity determines the psychic profit which the successful action brings to the acting individual. But psychic quantities can only be felt. They are entirely personal, and there is no semantic means to express their intensity and to convey information about them to other people.

There is no method available to construct a unit of value. Let us remember that two units of a homogeneous supply are necessarily valued differently. The value attached to the nth unit is lower than that attached to the (n - 1)th unit.

In the market society there are money prices. Economic calculation is calculation in terms of money prices. The various quantities of goods and services enter into this calculation with the amount of money for which they are bought and sold on the market or for which they could prospectively be bought and sold. It is a fictitious assumption that an isolated self-sufficient individual or the general manager of a socialist system, i.e., a system in which there is no market for means of production, could calculate. There is no way which could lead one from the money computation of a market economy to any kind of computation in a nonmarket system.

The Theory of Value and Socialism

Socialists, Institutionalists and the Historical School have blamed economists for having employed the imaginary construction of an isolated individual's thinking

[5] For a critical analysis and refutation of Fisher's argument, cf. Mises, *The Theory of Money and Credit*, trans. by H. E. Batson (London, 1934), pp. 42-44; for the same with regard to Wieser's argument, Mises, *Nationalokonomie* (Geneva, 1940), pp. 192-194.

and acting. This Robinson Crusoe pattern, it is asserted, is of no use for the study of the conditions of a market economy. The rebuke is somewhat justified. Imaginary constructions of an isolated individual and of a planned economy without market exchange become utilizable only through the implication of the fictitious assumption, self-contradictory in thought and contrary to reality, that economic calculation is possible also within a system without a market for the means of production.

It was certainly a serious blunder that economists did not become aware of this difference between the conditions of a market economy and a nonmarket economy. Yet the socialists had little reason for criticizing this fault. For it consisted precisely in the fact that the economists tacitly implied the assumption that a socialist order of society could also resort to economic calculation and that they thus asserted the possibility of the realization of the socialist plans.

The classical economists and their epigones could not, of course, recognize the problems involved. If it were true that the value of things is determined by the quantity of labor required for their production or reproduction, then there is no further problem of economic calculation. The supporters of the labor theory of value cannot be blamed for having misconstrued the problems of a socialist system. Their fateful failure was their untenable doctrine of value. That some of them were ready to consider the imaginary construction of a socialist economy as a useful and realizable pattern for a thorough reform of social organization did not contradict the essential content of their theoretical analysis. But it was different with subjective catallactics. It was unpardonable for the modern economists to have failed to recognize the problems involved.

Wieser was right when he once declared that many economists have unwittingly dealt with the value theory of communism and have on that account neglected to elaborate that of the present state of society[6]. It is tragic that he himself did not avoid this failure.

The illusion that a rational order of economic management is possible in a society based on public ownership of the means of production owed its origin to the value theory of the classical economists and its tenacity to the failure of many modern economists to think through consistently to its ultimate conclusions the fundamental theorem of the subjectivist theory. Thus the socialist utopias were generated and preserved by the shortcomings of those schools of thought which the Marxians reject as "an ideological disguise of the selfish class interest of the exploiting bourgeoisie." In truth it was the errors of these schools that made the socialist ideas thrive. This fact clearly demonstrates

[6] Cf. Friedrich von Wieser, *Der naturliche Wert* (Vienna, 1889), p. 60, n. 3

the emptiness of the Marxian teachings concerning "ideologies" and its modern offshoot, the sociology of knowledge.

3. The Problem of Economic Calculation

Acting man uses knowledge provided by the natural sciences for the elaboration of technology, the applied science of action possible in the field of external events. Technology shows what could be achieved if one wanted to achieve it, and how it could be achieved provided people were prepared to employ the means indicated. With the progress of the natural sciences technology progressed too; many would prefer to say that the desire to improve technological methods prompted the progress of the natural sciences. The quantification of the natural sciences made technology quantitative. Modern technology is essentially the applied art of quantitative prediction of the outcome of possible action. One calculates with a reasonable degree of precision the outcome of planned actions, and one calculates in order to arrange an action in such a way that a definite result emerges.

However, the mere information conveyed by technology would suffice for the performance of calculation only if all means of production--both material and human--could be perfectly substituted for one another according to definite ratios, or if they all were absolutely specific. In the former case all means of production would be fit, although according to different ratios, for the attainment of all ends whatever; things would be as if only one kind of means--one kind of economic goods of a higher order existed. In the latter case each means could be employed for the attainment of one end only; one would attach to each group of complementary factors of production the value attached to the respective good of the first order. (Here again we disregard provisionally the modifications brought about by the time factor.) Neither of these two conditions is present in the universe in which man acts. The means can only be substituted for one another within narrow limits; they are more or less specific means for the attainment of various ends. But, on the other hand, most means are not absolutely specific; most of them are fit for various purposes. The facts that there are different classes of means, that most of the means are better suited for the realization of some ends, less suited for the attainment of some other ends and absolutely useless for the production of a third group of ends, and that therefore the various means allow for various uses, set man the task of allocating them to those employments in which they can render the best service. Here computation in kind as applied by technology is of no avail. Technology operates with countable and measurable quantities of external things and effects; it knows causal relations between them, but it is foreign to their relevance to human wants and desires. Its field is that of objective use-value only. It judges all problems from the disinterested point of view of a neutral observer of

physical, chemical, and biological events. For the notion of subjective use-value, for the specifically human angle, and for the dilemmas of acting man there is no room in the teachings of technology. It ignores the economic problem: to employ the available means in such a way that no want more urgently felt should remain unsatisfied because the means suitable for its attainment were employed--wasted--for the attainment of a want less urgently felt. For the solution of such problems technology and its methods of counting and measuring are unfit. Technology tells how a given end could be attained by the employment of various means which can be used together in various combinations, or how various available means could be employed for certain purposes. But it is at a loss to tell man which procedures he should choose out of the infinite variety of imaginable and possible modes of production. What acting man wants to know is how he must employ the available means for the best possible--the most economic--removal of felt uneasiness. But technology provides him with nothing more than statements about causal relations between external things. It tells, for example, 7 *a* + 3 *b* + ...*xn* are liable to bring about 8 *P*. But although it knows the value attached by acting man to various goods of the first order, it cannot decide whether this formula or any other out of the infinite multitude of similarly constructed formulas best serves the attainment of the ends sought by acting man. The art of engineering can establish how a bridge must be built in order to span a river at a given point and to carry definite loads. But it cannot answer the question whether or not the construction of such a bridge would withdraw material factors of production and labor from an employment in which they could satisfy needs more urgently felt. It cannot tell whether or not the bridge should be built at all, where it should be built, what capacity for bearing burdens it should have, and which of the many possibilities for its construction should be chosen. Technological computation can establish relations between various classes of means only to the extent that they can be substituted for one another in the attempts to attain a definite goal. But action is bound to discover relations among all means, however dissimilar they may be, without any regard to the question whether or not they can replace one another in performing the same services.

Technology and the considerations derived from it would be of little use for acting man if it were impossible to introduce into their schemes the money prices of goods and services. The projects and designs of engineers would be purely academic if they could not compare input and output on a common basis. The lofty theorist in the seclusion of his laboratory does not bother about such trifling things; what he is searching for is causal relations between various elements of the universe. But the practical man, eager to improve human conditions by removing uneasiness as far as possible, must know whether, under given conditions, what he is planning is the best method, or even a method, to make people less uneasy. He must know whether what he wants to achieve will

be an improvement when compared with the present state of affairs and with the advantages to be expected from the execution of other technically realizable projects which cannot be put into execution if the project he has in mind absorbs the available means. Such comparisons can only be made by the use of money prices.

Thus money becomes the vehicle of economic calculation. This is not a separate function of money. Money is the universally used medium of exchange, nothing else. Only because money is the common medium of exchange, because most goods and services can be sold and bought on the market against money, and only as far as this is the case, can men use money prices in reckoning. The exchange ratios between money and the various goods and services as established on the market of the past and as expected to be established on the market of the future are the mental tools of economic planning. Where there are no money prices, there are no such things as economic quantities. There are only various quantitative relations between various causes and effects in the external world. There is no means for man to find out what kind of action would best serve his endeavors to remove uneasiness as far as possible.

There is no need to dwell upon the primitive conditions of the household economy of self-sufficient farmers. These people performed only very simple processes of production. For them no calculation was needed, as they could directly compare input and output. If they wanted shirts, they grew hemp, they spun, wove, and sewed. They could, without any calculation, easily make up their minds whether or not the toil and trouble expended were compensated by the product. But for civilized mankind a return to such a life is out of the question.

4. Economic Calculation and the Market

The quantitative treatment of economic problems must not be confused with the quantitative methods applied in dealing with the problems of the external universe of physical and chemical events. The distinctive mark of economic calculation is that it is neither based upon nor related to anything which could be characterized as measurement.

A process of measurement consists in the establishment of the numerical relation of an object with regard to another object, viz., the unit of the measurement. The ultimate source of measurement is that of spatial dimensions. With the aid of the unit defined in reference to extension one measures energy and potentiality, the power of a thing to bring about changes in other things and relations, and the passing of time. A pointer-reading is directly indicative of a spatial relation and only indirectly of other quantities. The assumption underlying measurement is the immutability of the unit. The unit of length is the

rock upon which all measurement is based. It is assumed that man cannot help considering it immutable.

The last decades have witnessed a revolution in the traditional epistemological setting of physics, chemistry, and mathematics. We are on the eve of innovations whose scope cannot be foreseen. It may be that the coming generations of physicists will have to face problems in some way similar to those with which praxeology must deal. Perhaps they will be forced to drop the idea that there is something unaffected by cosmic changes which the observer can use as a standard of measurement. But however that may come, the logical structure of the measurement of earthly entities in the macroscopic or molar field of physics will not alter. Measurement in the orbit of microscopic physics too is made with meter scales, micrometers, spectrographs--ultimately with the gross sense organs of man, the observer and experimenter, who himself is molar[7]. It cannot free itself from Euclidian geometry and from the notion of an unchangeable standard.

There are monetary units and there are measurable physical units of various economic goods and of many--but not of all-services bought and sold. But the exchange ratios which we have to deal with are permanently fluctuating. There is nothing constant and invariable in them. They defy any attempt to measure them. They are not facts in the sense in which a physicist calls the establishment of the weight of a quantity of copper a fact. They are historical events, expressive of what happened once at a definite instant and under definite circumstances. The same numerical exchange ratio may appear again, but it is by no means certain whether this will really happen and, if it happens, the question is open whether this identical result was the outcome of preservation of the same circumstances or of a return to them rather than the outcome of the interplay of a very different constellation of price-determining factors. Numbers applied by acting man in economic calculation do not refer to quantities measured but the exchange ratios as they are expected--on the basis of understanding--to be realized on the markets of the future to which alone all acting is directed and which alone counts for acting man.

We are not dealing at this point of our investigation with the problem of a "quantitative science of economics," but with the analysis of the mental processes performed by acting man in applying quantitative distinctions when planning conduct. As action is always directed toward influencing a future state of affairs, economic calculation always deals with the future. As far as it takes past events and exchange ratios of the past into consideration, it does so only for the sake of an arrangement of future action.

[7] Cf. A. Eddington, *The Philosophy of Physical Science*, pp. 70-79, 168-169.

The task which acting man wants to achieve by economic calculation is to establish the outcome of acting by contrasting input and output. Economic calculation is either an estimate of the expected outcome of future action or the establishment of the outcome of past action. But the latter does not serve merely historical and didactic aims. Its practical meaning is to show how much one is free to consume without impairing the future capacity to produce. It is with regard to this problem that the fundamental notions of economic calculation--capital and income, profit and loss, spending and saving, cost and yield--are developed. The practical employment of these notions and of all notions derived from them is inseparably linked with the operation of a market in which goods and services of all orders are exchanged against a universally used medium of exchange, viz., money. They would be merely academic, without any relevance for acting within a world with a different structure of action.