

Clarence Ayres,
The Theory of Economic Progress
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**Chapter IV:
The Theory of Value**

THE CLASSICAL tradition of economic thinking was formed in the eighteenth century in a climate of opinion one of the principle features of which was the idea of natural order. It also embodied an eighteenth century conception of human nature which antedates the modern science of psychology. Much has been made of both these points by later criticism, but without notable effect. No one doubts the influence of the philosophy of natural order upon eighteenth century economists; but contemporary economists protest vehemently that their use of such terms as “normal” and “equilibrium” has nothing in common with eighteenth, century ways of thinking. Similarly no one doubts the psychological naiveté of the eighteenth, century writers, but our contemporaries insist that no such traces of it are to be found in their work. So long as such charges are preferred and answered one at a time, the defense may be disconcertingly effective. How is the critic to prove, in the face of vigorous denial, that the phrase “normal price” is an evocation of the “laws of nature” of another age? The answer lies in the cumulative character of intellectual guilt. Modern representatives of the classical tradition may or may not talk the language of bygone ages at any particular point; nevertheless the whole theory of value which lies at the heart of all their reasoning is the embodiment and summation of all they disavow.

The issue of natural order is, of course, teleology. This way of thinking has been aptly characterized as that of people who think it very wonderful that fishes which after all can live in nothing else should be provided with so much water. The word “natural” is harmless enough. Indeed its implication is that of an order of things which exist outside ourselves and quite independent of our wishes and intentions or even, perhaps, of any wish or intention. The idea of order is likewise unexceptionable. Both words are widely used today in unimpeachably scientific senses. But trouble develops when they are used together. Although we do use the word “order” to designate patterns in the formation of which guiding intelligence has had no hand, as in zoological classification, we also use it quite generally to characterize human activities so generally that we can scarcely think of “the order of nature” without implying that nature reveals the kind of order to which housekeepers aspire. This was the intention of the eighteenth, century philosophers, and it was an idea which they had “come by naturally.” Their way of thinking was inherited from medieval theology. As the saying goes, “Some people call it Nature, but others call it God.” In a very remarkable little book, *The Heavenly City of the Eighteenth Century Philosophers*, Professor Carl Becker has pointed out the essential continuity of the “age of reason” with the age of faith. The schoolboy who wrote that Newton discovered three laws of motion which it would be well for all of us to follow was closer to the mark than he realized. To the mind of the seventeenth and eighteenth centuries the laws of nature seemed to have been enacted for the guidance of rational human beings. Early modern science, as Professor E. A. Burtt has pointed out and students now generally realize, rested on metaphysical foundations, especially on the conception of the universe as rational in the sense that man is rational.

This was of course the medieval idea. According to the doctors of the church both

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statutory and natural law embody those faint glimmerings of Infinite Wisdom which the imperfect mind of man has been able to apprehend. Indeed the distinction between statutory law and natural law was much less sharp than it seems today. "Natural law" had a legal as well as a scientific content and was one of the foundations of modern jurisprudence as it was also one of the sources of the medieval way of thinking.

For what is most significant is the wide dispersion and great antiquity of this state of mind. It is by no means limited to Christian theology. On the contrary, a theory of the orderliness of nature and its application to human affairs is to be found in the literatures of all peoples who had literatures, and in Western culture it goes back as far as the records go. Scholars have pointed out at least three clear sources of the medieval complex: ancient philosophy with which the medieval mind re-established direct contact; the early Christian tradition (e.g. St. Augustine) upon which Greek philosophy had impacted in the formative period; and the Justinian codification of Roman law with its Stoic tradition of *jus naturale*. And behind all this lay the rubrics of primitive culture. Some years ago Professor F. M. Cornford demonstrated in a book which ought to be much more widely studied than it is, *From Religion To Philosophy*, that a sense of fate (*moira*) anticipated all the gods, and what remained to dominate the grand tradition of Greek philosophy was that aboriginal sense of fate.

This sense of a fateful order by which the universe and even the human economy are shaped is more than a historical survival. The wide dispersion of the concept of a natural order in the universe is probably a case of convergence of cultures upon this point rather than of universal diffusion, and the convergence is probably due to circumstances which affect all "abstract" thinking and of which the general disposition to impute human qualities to the non-human universe is the result. In his pioneer studies of the social character of the conceptualizing process, the French sociologist, Emile Durkheim, used the phrase "collective representation" to describe the way of thinking by which all societies impute their special arrangements to the universe. Durkheim and his followers made the mistake of contrasting this "prelogical" conceptualization of "primitive mentality" with the supposedly logical thought processes of modern Frenchmen; but the usefulness of his analysis of "collective representation" is only heightened by the realization that modern thinking is full of collective representations.

The conception of "the order of nature" is a collective representation. Just as contemporary theologians and moralists read a social meaning into the physical theories of the "relativity" of space and time and the "indeterminacy" of the atom, so the eighteenth-century philosophers read social meaning into the terminology of Galileo, Newton, and Harvey. Professor Becker remarks that although not everybody read Newton's *Principia* even in the eighteenth century, everybody talked about it, just as virtually the whole of the last generation has talked about Freud. In his *Growth of Philosophical Radicalism* Elie Halevy called attention to the use Adam Smith made of gravitational figures of speech, metaphors which are still repeated in current economic textbooks apparently without any realization on the part of contemporary writers that they are perpetuating eighteenth-century obsessions. The same significance attaches to the fact that when the physician, Francois Quesnay, came to discuss economic processes he did so in the language of Harvey's great discovery. For Adam Smith, current prices "gravitate about" normal price; for Quesnay, riches "circulate." Galileo's pendulum has swung its way through the whole of modern thought.

In economics the chief repository of this way of thinking is the concept of equilibrium. Since this term is more widely used by economists today than ever

before, contemporary theorists are faced with two alternatives. Either the collective representation of the eighteenth century still dominates economic thinking, or the term "equilibrium" is used today in a quite different sense from that which dictated its first employment. The latter is of course what economists now say, and in making this claim they derive aid and comfort from modern physics. The term "equilibrium" is, to be sure, still employed in physics where it no longer has any connotation of a far-off, divine event but means only whatever sort of balance of forces may conceivably obtain in any given situation. This, modern economists protest, is just what they mean by equilibrium. The relation of supply and demand with respect to price is that of two springs attached to a moving peg. Any increase in the tension of one spring will cause the peg to move that way until the tensions are equalized and the peg comes to rest. That, they say, is just what happens in the case of price: a change of tensions, a price adjustment, and a return to equilibrium.

But there is an important difference between physics and economics of which this interpretation takes no account. Physicists set no store by equilibrium but economists do. They must. The whole significance of equilibrium in economics is that it is beneficent. Equilibrium is good. Disequilibrium is bad. That of course is the older significance of "natural order." The order of nature was conceived to be beneficent. It was the glory which the heavens revealed. This is the content of the idea of equilibrium with which modern physics has dispensed. Physics no longer hymns the "natural harmonies" of the universe; but economics does. It does so today with a certain obliquity of language. No contemporary economist makes "the natural harmonies" of supply and demand a matter of "Christian evidences," as Archbishop Whateley did a century ago. Nevertheless price equilibrium is a consummatory state even in contemporary economics, not merely an analytical device as it is in modern physics.

In recent years certain economists have showed a disposition to deny this. A remark to this effect by Professor Lionel Robbins, that "equilibrium is just equilibrium," has been very widely quoted. The motive of such a declaration is obvious. It betrays consciousness if not of guilt at least of general suspicion. Few physicists take the trouble any longer to clear their use of the concept of "equilibrium" of taint of beneficence, since their context implies no such beneficence. That of economics does, hence the denial. It goes without saying that this denial is sincere, but it is nevertheless highly paradoxical. For the question at once presents itself: if equilibrium is just equilibrium, why are economists so much concerned about it? Why is it so necessary for economists to prove that all prices "gravitate about" a point of equilibrium if equilibrium has no more significance than that of a pair of springs?

As a matter of fact one of the most recent and startling developments of price theory, that of "monopolistic competition," seems to be well on the way to establishing the insignificance of equilibrium, with effects which are not yet fully appreciated. The whole upshot of classical price theory was that prices are "naturally harmonious," as the universe was once conceived to be, and that in the absence of "unnatural restraints" the whole system would come to rest at a point at which the factors of production would be used with maximum efficiency and utilities would be distributed in such a way that the total satisfaction of the whole community could not be increased by any change. It now appears that whatever the situation with regard to restraint of trade there is some point or other at which prices come to rest. The theory of monopolistic competition is the deductive determination of the various points at which equilibrium occurs under various conditions of restraint of trade. This is indeed the demoralization of the concept of equilibrium. But it is the reduction of the whole classical theory of price to an absurdity. The essence of that theory is that the price system forms patterns which

are significant, whereas the essence of this new theory is that price patterns are without significance. This may be so. But if so, why are we concerned about them?

The present discussion, however is not concerned with criticism of price theory, ancient or modern, but only with tracing the formation of the pattern. For this purpose the theory of human nature is more important than that of equilibrium. The conception of value in which price theory eventuates has its source in human nature; and this conception of human nature as the locus of value was the psychological counterpart of the harmonies of nature. The eighteenth century was greatly exercised about human nature, and for a definite reason. As Leslie Stephen pointed out in his classic *History of English Thought in the Eighteenth Century*, the development of the natural sciences posed a conundrum. It was no longer possible for educated men to account for such moral decency as human behavior does after all exhibit in terms of the direct intervention of a guiding Deity. The Hand, if it existed, had at least become invisible. Consequently the patterns of moral action must be somehow implicit in the "natural order" of things. The question was, "How?" Two types of answer can be made, along the lines of what philosophers call rationalism and empiricism. Rationalism has had its British representatives; but it has flourished chiefly in Germany and its influence upon economic thinking has been principally through the metaphysical background of Karl Marx. The climate of opinion in which classical political economy germinated, for the most part in England, was that of "British empiricism."

The influence of this tradition of moral empiricism upon the classical way of thinking in economics is notorious. Every undergraduate knows that Adam Smith occupied a famous chair of moral philosophy and made an outstanding contribution to the literature of ethics and psychology years before he wrote *The Wealth of Nations*. It is also notorious that classical economic theory makes certain important assumptions with regard to human nature by which that whole way of thinking has been conditioned. Nevertheless economists have showed very little disposition to investigate these assumptions and their sources. The reason for this neglect is apparent in what such investigation reveals. Adam Smith's theory of moral sentiments was the behaviorism of the eighteenth century. By intention it was a wholly objective account of human nature, at least so far as the mechanism goes. What Smith called "sentiment" his predecessors had called "sense," and they had done so with the intention of identifying the springs of conduct with the "five senses." It was a sort of eighteenth-century stimulus and response, or push-button, theory of behavior. The third Earl of Shaftesbury, who had been brought into the world by John Locke and was the inspiration of Smith's teacher and predecessor, Francis Hutcheson, regarded the sense of smell as the prototype of the moral sense. The reason a man avoids nastiness even in the absence of reproving associates, he said, is because he has a nose. Similarly he avoids wrong, doing because he has the moral equivalent of the olfactory sense.

All this sounds very quaint today. Noses, we now realize detect odors but do not select them. The selection is done by society, by social habit and tradition; that is, by the mores. There is no odor, however foul it may seem to certain people, which is not enjoyed by other people with different traditions; and the same thing is true of behavior generally. There is no act which is universally condemned. "Crime" is universally condemned. But "crime" is an abstraction, not an act. What is crime in one set of circumstances or to one set of people may be highly meritorious in other circumstances or to other people. The eighteenth-century behaviorists did just what so many of us have done in one way or another: they tried to give a thoroughly scientific explanation of something which is not scientific at all. In our own time the device of instinct has been used in just this way. An instinct purports to be a bodily behavior mechanism; but what it purports to explain is a matter of social

opinion, the opinions of the explainers. The British empiricists were disposed to be as empirical as possible with regard to their devices. Their moral sense was conceived to be virtually a bodily mechanism. Since their knowledge of the olfactory mechanism was very limited as compared with our own (which is still far from complete), it was possible for them to suppose that the moral sense functions just like the sense of smell. But what they sought to explain (in the case of both these senses) was wholly preconceived.

It was, in fact, the pre-established harmony of the theologians. Science had eliminated the guiding hand of Providence but not the conception of a providentially well, ordered universe. Consequently there was only one possible explanation of this state of affairs: contrived at the outset with Infinite Cunning, wound up at the beginning of time like a transcendental clock, it would tick on through infinity according to the beneficent laws of nature, a perpetual manifestation of the rationality of things. Human nature was thus conceived to be a part of the universal clock. For generations students of economics have quoted the famous passages in which, for example, Adam Smith says that the prudent investor, "is lead as though by an invisible hand to promote an end which is no part of his intention," smiling tolerantly at this quaint conceit.

No misinterpretation could be more complete. Economists should read Hume's account of the sexual instinct whereby, as he virtually says (and his conception of human nature was closer to Smith's than any other), man is lead as though by an invisible hand to promote an end which is no part of his intention, to wit, the perpetuation of the species.

This way of thinking is no mere byplay. To regard it as having none but a literary connection with classical economic theory is to misconceive that whole system of ideas. Central to that way of thinking is the conception of a "community of interests" in economic life. Price is the mechanism and competition is the spirit of this supposed community of economic interests to the analysis of which the whole of classical theory is devoted. But its substance,, that of which an explanation is being sought,, is the conception of human nature and social order in terms of pre-established harmony, the harmony of a world which acts as though guided by an invisible hand because it was indeed devised by an All,wise Artificer and wound up to run precisely along these lines.

Of all the rubrics of classical theory competition is perhaps the most extraordinary. What this word has reference to is presumably the struggle for existence on the economic level. As such it is red in tooth and claw. The life of the competitive business man is one of unremitting asperity and subterfuge, and this is not only true of the great barons of the business world. For sheer meanness, deceit, trickery, subterfuge, and intrigue the corner grocer has no equal. Furthermore to suppose that monopoly and competition are "natural" opposites or contraries is the height of absurdity. The ambition of every competitive business man is to put his rival out of business and absorb his trade. Conspiracy to this end is not confined to the skyscrapers of the New York financial district. Every butcher and plasterer has his "friends" And all this is a matter of common knowledge. To be sure, every particular act of petty knavery is more or less concealed from public view. But ten day's apprenticeship in any competitive establishment would be sufficient to open the eyes of the inquiring student to the character of competition. Why, then, does competition play the role of savior in the traditional economic drama?

Leslie Stephen remarks that Adam Smith was not the keen observer of the humble actualities of economic life that he is reputed to have been. Indeed, he was not an observer at all; he was a philosopher. His interest was focused on ideas, and his

system was “simple and obvious” because it was compounded of familiar and generally accepted ideas, at this point the idea of sympathy. Both Smith and Hume, in whose Theory of Moral Sentiments and Inquiry Concerning the Principles of Morals the idea of moral sense reached its apogee, summed up the moral nature of man in “sympathy.” The idea was that human beings are so attuned to each other that each one responds to his fellows automatically so to speak, in such a way that the total pattern of behavior forms a natural concord. This concord is not an adventitious thing; it is implicit in human nature. It is Nature’s master device for effecting harmony in the human sphere. This is what competition assumes. It has been a favorite maneuver of economists throughout the classical period to “simplify” specific economic situations “for analytical purposes” by postulating certain specific economic changes while “all other things remain equal.” In a recent and searching study of assumptions of this kind T. W. Hutchinson has given especial attention to this “ceteris paribus” assumption and has concluded that it is meaningless. It is indeed devoid of economic actuality, but not wholly without content. Its content is the idea of sympathy. What economists assume when they undertake to infer the “natural” reactions of business men to a given shift of demand or supply “all other things being equal,” is that business men do not naturally kick and gauge but do behave with “sympathy.”

This, it goes without saying, is a tremendous assumption, for it locates the well-springs of all economic behavior in the human soul. From the modern scientific point of view, what is wrong with eighteenth-century psychology is not so much its fatuousness as its subjectivity. Empirical as they were, the moral sense philosophers assumed as a matter of course that the senses, all the senses, are organs of the soul. When Shaftesbury discussed the nose, it was as a projection of the mind. Sensations were of course “mental” phenomena, and so was “moral sense.” That is why the analogy was not crippled at the outset by the absence of a moral sense organ. The organ is only the window. Since the sensation, even of smell or taste, is a figment of the mind, and since morality is otherwise inconceivable, the two may be identified with perfect ease, on the mental level. Eighteenth-century empiricism was the purportedly objective analysis of avowedly mental phenomena.

This is what it means to speak of classical economic theory as “deductive” reasoning. Obviously there is nothing amiss with deduction, which is only name for the process by which its meaning is elicited from any given proposition; and if this were all that is wrong with the traditional way of thinking in economics, it would be virtually blameless. That is why its proponents are so ready to admit its deductive character. But the validity of any given deduction is proportionate to the validity of the propositions from which meaning is deductively elicited. The trouble with the classical way of thinking is its basic propositions, the theory of human “nature” of which all economic activity is conceived to be the “natural” expression.

This conception of human nature in subjective, mentalistic terms not only inspires the idea of a competitive “community of interests” which was political economy’s answer to the medieval doctrine of just price; it also inspires the conceptions of interest in terms of which the whole theory of value is conceived. For the moral sense of the eighteenth-century philosophers was a principle of morals no less than of psychology. As such it was a variant of a very ancient moral philosophy, namely hedonism. As every student knows, hedonism is the theory that in his moral life man is guided by the “senses” of pleasure and pain, happiness and unhappiness, utility and disutility. Since these “senses” or “sentiments” are conceived to be the “natural” responses to stimuli of the same sort as the senses of hearing, sight, smell, and the rest, for which they are named, the theory of moral sentiments has always been regarded as a “naturalistic” and therefore quasi-scientific way of thinking to

which accordingly men have repeatedly turned in those ages (such as that of the ascendancy of Greek philosophy in the ancient world) when the grip of revealed religion has relaxed. Such was the situation in the eighteenth century and such was also the response.

When the gods resign, the sense of destiny remains, in the moral sphere no less than the natural universe. To suppose that men are impelled "by nature" to seek happiness and avoid pain and effort was altogether consonant with the natural philosophy of the age of Newton and Harvey. But the application of this supposed axiom has always been obscure. To just what way of life does the pursuit of happiness (or satisfaction) lead? That is the question which the philosophers have always found it difficult to answer.

Whereas the general public pictures a life of "happiness" in Sybaritic terms and defines an "epicure" as a devotee of physical indulgence, Epicurus himself and all thoughtful students of the problem have tried to represent the pursuit of happiness as the road to spiritual ideals. The difficulty is that is not a road but only a synonym. The body winces with pain, but happiness is defined by society. No less than modern psychology, modern social studies have now enabled us to see that such ideals as those of the American Declaration of Independence are never deduced by philosophers from such "axioms" as "the pursuit of happiness." On the contrary, they are projections of the actual life of the community, the "mores" in this case of actual democracy. What seems morally "pleasant" and "unpleasant" to any community of men is determined by their mores, and not vice versa. Hedonism in all its forms is a vicious circle for this reason. "Pleasure" (or "satisfaction" or "utility") is not a natural phenomenon like the "five senses" of the physical organism. For every man it is determined by the social medium in which he lives; and consequently when it is adopted as a tool of analysis or a term of explanation of that social order, its adoption means the assumption in advance of all that social fabric of which an explanation is being sought. We hold this truth to be self-evident, that men who live by democracy, or by capital, will find in it their happiness, and that is all that is self-evident.

The philosophers of the eighteenth century must not be held responsible for the social studies of the twentieth, but they were quite aware of the difficulty of their situation, and it was in this difficulty that the price system appeared as a god from the machine. Whereas in other ages hedonism has foundered upon the inescapable vagueness of its categories, Adam Smith and the other creators of political economy were inspired to seize upon the pricing mechanism as the vehicle of the pursuit of happiness. It is to this "discovery" or synthesis, more than to any other inspiration, that we owe the whole system of ideas by which the economic thinking of the past five generations has been dominated. Obviously Adam Smith was not its sole author. Indeed it is impossible to say when and where and how the idea of a correlation between price and value first occurred. The physiocrats had a glimmering of it, and Adam Smith doubtless owed his first perceptions directly to them; but fainter glimmerings may be detected far back in economic literature. From the time when the price system first began to exercise its fatal fascination, its students have caught glimpses, beneath the surface, of the promise of a larger meaning, one in which the meanings of commercial society itself seemed about to emerge.

For price seemed to solve the immemorial enigma. To the question, "What is happiness? Who shall say?" the classical economists seemed to have found a final answer. No one can say; but no one need say, since the price system provides an instrument through the subtle operation of which every man can have his say. Since consumption seems by axiom to be the consummation of all economic effort, and

since consumption is actualized in demand, and since demand impacts upon the scarcity of nature to determine the form and direction of every economic undertaking, it seems to follow that commerce itself expresses in this subtle fashion the aspirations of the race.

According to classical theory consumption is the “end” of all economic activity. It would be interesting to know who first laid down this “axiom.” Adam Smith states it in the clearest and most categorical language, and it is still repeated in virtually identical wording in current treatises and textbooks. To most people, apparently, this proposition still has the sound of an axiomatic truth. But why? What, exactly, does it mean? Clearly the word “end” is not used here in any chronological sense. That is, no one supposes that economic activity “comes to an end” with consumption. Obviously it never comes to an end at all but goes on continuously. Each act of consumption is followed by other acts of a productive character and so by an indefinite series of successive consumptions and productions. If the “axiom” means anything, it can only mean that the acts of consumption are somehow “consummatory,” that they are what philosophers have called “final causes.” That is, they have the same relation to production which “salvation” has to “repentance.” There is presumed to be a certain state of spiritual condition (consumption, or “salvation”) which is conceived to be valuable “in itself,” to which the other state conduces; so that the other state (production, or “repentance”) is conceived to be valuable not “in itself” but only as a “means” to the transcendent “end.”

It is this transcendentalism which has kept economic thinking in bond to price theory. It was implicit in the whole conception of human nature in terms of natural harmony from which the classical tradition was derived. One might suppose that a theory which treats consuming as in effect the salvation of the race would proceed at once to identify economic welfare with more abundant consumption. But this, it seems, would be naive. In classical theory consumption is a vulgarly physical activity such as eating or sleeping under shelter; it is a matter not of the use of things but of the consumption of “value.” What matters is not the calories and vitamins the food contains but its “utility,” that is to say its “want,satisfying” quality, that is to say, the “feelings” it excites in the breast of the consumer. Experiences such as these are uniquely individual in the metaphysical sense, locked within the spiritual being of each individual. Consequently the economist can know economic value only as it is revealed in the “wants” with which each individual reports his own unique spiritual experiences; and since these are made known by purchases which in turn are gathered up and synthesized in the price system, it follows that the price system is the only locus of value and guide to economic welfare.

Such being the case, the task of economic science is to analyze the subtle and complicated process by which value is created and consumed; and it is has proceeded to do so by the elaboration of a series of formulas the bewildering complexity of which has steadily increased from generation to generation. But throughout all this complexity of detail the gist of the matter remains quite simple. It is a misrepresentation to say as Mr. J. A. Hobson has done that “the main concern” of economic theory is “to furnish ‘laws’ conducive to abundant and reliable supplies of capital and labor at ‘reasonable’ prices.” The laws and institutions of commercial society do this quite effectively. The task of political economy is to “interpret” the situation which the institutions of capitalism have brought about, in particular the role of capital. To accomplish this, it is necessary to show that capital and labor are “worthy of their hire,” that prices are just, and that the over,all situation which is induced by the free play of the price system is one of maximum efficiency in the use of the factors of production and maximum satisfaction in the distribution of the product of industry to the community.

For this purpose two sorts of variables must be employed, those now generally identified by the terms “utility” and “productivity.” These are the entities which Alfred Marshall’s famous simile likened to the opposing blades of a pair of shears; in trimming the cloth of capitalism they cut against each other. They are the “quantities” which require to be equated in the formulas of value theory. Although both these terms are commonly identified with the “neo,classical” period, both are in fact very ancient. In one form or another “utility” may be found as far back as economic literature goes. Perhaps the first articulate form in which the problem of value theory appeared was that of the relation between “value in use” and “value in exchange,” which is as much as to say “utility” and price. If price may be regarded as “setting a value” on things, then what is the relation between the value which price sets and the value things “really have” in the estimation of those who use them? This was the issue between “value in use” and “value in exchange,” and it is still the issue of utility conceived as the “want,satisfying” quality of things. All that was added in the last third of the nineteenth century was the resolution of the want,satisfying quality into infinitesimal increments for purposes of mathematical treatment.

The term “productivity” is also of indefinite age. It was one of the leading categories of the physiocrats nearly a century and a half before its exploitation by Professor John Bates Clark, and the significance which the physiocrats attached to it is still the essence of the case. They wished discriminate in favor of agriculture and against commerce and industry, and they employed the term “productivity” for this purpose. What it imputes is a very special kind of creative potency, an “effective causation” in the metaphysical sense, by virtue of which its agents may be judged to be socially deserving.

Because Adam Smith and all his successors rejected this particular discrimination, later students have failed to notice that the term “productivity” has retained all its discriminatory significance and still continues to pose the physiocratic question of social deserts. For John Bates Clark and his successors, the question is still one of the relation between the pecuniary payments to labor and capital and the value they create.

It would be very nice indeed if it could be shown that the social deserts of the increments of capital and labor which are employed in making any given article are exactly equal to the real satisfactions which the article actually gives in use, and that both are correctly measured by the price at which the article is sold and bought. But there is a difficulty. Both of these quantities are unknowns. This situation is so fantastic that the mind almost refuses to entertain it. Nevertheless it is clear and unmistakable. Economic science has no technique of independent measurement of any of these entities, utility, productivity, or value. How do we know that price measures any one of them, let alone equating them? We do not know; we only assume it to be so. The utilities for which a labor customer pays and the productivities for which labor and capital are paid are equal by assumption, and that is all there is to it. We have no more evidence of their actual caliber than we have of the quantities of sin, repentance, and divine grace which are equated in salvation.

As scientific methodology this sort of thing is so outrageous as to pass belief. How could intelligent students have engaged seriously in exercises of this kind? The answer is that each of these terms is capable of precise definition, from “value” on down. Thus economists usually define “value” as the relation between the price of a given commodity and the prices of other commodities. The distinction between absolute price and such a ratio is of course a genuine and useful one. Indeed it is the same distinction as the one we make between “money wages” and “real wages.”

The price of wheat may go up while its "value" (price ratio to other commodities) goes down, just as money wages may go up while real wages go down. In similar fashion "demand" for example may be defined in terms of actual purchases with the proviso that we know nothing of it except in terms of actual purchase. Without doubt it is this apparent precision which has sustained these amazing theoretical exercises down to the present day. But it raises two questions.

If "value" means "price ratio," why is it called "value"? If "demand" means "purchase," why is it called "demand"? Each of these words is derived from common speech in which both have very extensive connotations of a highly ethical character. Many students of economics have labored mightily to purge their lucubrations of "ethical implications" of this character. With regard to "demand," for example, it is now standard practice for textbooks to warn their readers that in speaking of the "demand" for unhealthy, vicious, and even "anti-social" goods and services economists have no thought of endorsing the human attitudes at issue; what they have reference to is only the actuality of purchase of these things and services. But in that case why have they used such words as "demand" with their indissociable reference to appetites and attitudes? If demand means only purchase, the obvious way to purge economics of untoward ethical implications would be by simply saying "purchase." If that is what economists want and mean, why do they do otherwise?

If they did this, there would be no theory of value. Many members of the profession insist that they are prepared to face that outcome with equanimity. Their task they declare, is the investigation of the actualities of price behavior. In the performance of this task they are not concerned with any theory of value in the philosophic sense and would be quite able to use the phrase "price ratio" as a substitute for "value" if such a practice were to be generally adopted. This is all very well as far as it goes. To the credit of the profession very extensive empirical investigations of a highly exact and untheoretical character have indeed been prosecuted. But the proposal to confine economic discussion to this empirical universe of discourse raises another question. Very few of the empiricists refrain altogether from harboring social convictions or, as Professor Eric Roll has pointed out, from expressing them in public in such a manner as to suggest that the convictions somehow emerge from the empirical studies. According to their own avowals, this cannot be the case. Then where do they come from? Only one answer is possible: they come from the theory of value in the philosophic sense which these scientists as scientists have clearly and definitely disavowed.

The truth is, it is impossible for economists to disavow the ethical implications of value theory or to dispense with the terminology in which those implications are imbedded, since economics is, and always has been, concerned primarily with the meaning of prices patterns. The demonstration that fertilizer sales vary with the price of wheat does not reveal the meaning of the economy. Only a theory of value can do that, for it is after all a matter of value in the largest sense.

That is why economists persist indefatigably in the effort to elicit meaning from the price system. The absurdities of traditional theory are only too apparent. Critical study after critical study reveals the tautological character of economic reasoning with respect to this category and that. When criticism becomes too intense, economists abandon the offending term, not without a struggle, and triumphantly adopt another to the same effect. The history of these maneuvers is long and involved, and no important purpose would be served by reviewing it again. It is only the outcome that is significant. Professor Pigou declares that value is "indefinable," though we know that it is a spiritual quality and that it is measured by price. Professor Cassel rejects this conception of value "as an intensity of feeling

in the individual soul” on the ground that “we have no measure of such an intensity,” and therefore proposes that we abandon the category “value” in favor of price, since “ ‘values’ are then represented by the arithmetical figures which we call ‘Prices.’ Thus we gain the great advantage that our valuations become measurable quantities.” Professor Cassel likewise insists that “it is impossible to speak of the marginal productivity of any factor in the great social process of production except when the prices of the different factors are assumed to be known. But in this case the marginal productivity of each factor is simply its own price.” Similarly the concept of “utility” with its unconcealable subjectivity has been abandoned in favor of Pareto’s subterfuge of “indifference,” the present popularity of which is based on the assumption that “indifference” is not subjective, though dictionaries persist in defining it as “the state of being unconcerned; lack of interest or feeling; apathy.”

The net result of this extraordinary situation has been an increasingly general disposition on the part of economists to refer all their troubles to the philosophers. Economics, it seems, is limited to “the impact of human wants upon the limited resources of nature.” For the economist both the resources and the wants are “given.” They are “primary data.” This statement of the case represents a sincere attempt to approach the problems of economics in the spirit of scientific objectivity and caution, and is all the more remarkable on that account. For neither wants nor resources are “primary data” in the sense that no one can say any more about them than that they are what they are; and even if this is so, as Wesley Mitchell pointed out thirty years ago, it would then be the duty of the economists to proceed to repair this defect. If anything is known anywhere in the field of the social sciences today, it is that “wants” are not primary. They are not inborn physical mechanisms and they are certainly not spiritual attributes. These are social habits. For every individual their point of origin is in the mores of his community; and even these traditions have a natural history and are subject to modification in the general process of social change. No business man assumes that “wants” are “given.” One of the axioms of business is that markets must be created. Resources also are not fixed by the “niggardliness of nature.” They are defined by the state of the industrial arts. Every thoughtful and informed student can enumerate resources which have come into being within his lifetime as the result of new scientific discoveries and technological processes.

The truth is that these simple phrases in which economics is defined in terms of “human wants” and “limited resources” conjure up the whole climate of opinion of the eighteenth century. The resources represent “the order of nature,” and the wants evoke the transcendental metaphysics of the human “spirit.” And they do so not because of any deliberate recalcitrancy on the part of modern economists but because these are the only terms by use of which price can be conceived to be the locus of value, and because no other conception of economic value as yet exists.

For whether or not it continues to be a science of price, economics must be a science of value. If the economy is meaningless, no science of economics is possible. If it has meaning, the problem of economics is to elicit that meaning. The way of thinking which has prevailed hitherto has sought the meaning of the economy in price. It has done so because the subtlety of price relationships seemed to give promise of hidden meaning, because the justification of the dominance of money power involved the identification of “money values” with industrial actualities, and because the prevailing conception of the well-springs of human conduct seemed capable of fulfillment in the calculus of price. These promises have not been realized and that way of thinking has therefore failed.

But other ways of thinking are still possible, and not only possible but actual. All that economic thinking has hitherto been obliged to exclude and reject, all that is

excluded when it is assumed that “wants” are “primary” and that “scarcity” is defined by “nature” ., all that we know today of social change, including the factors which actually shaped the industrial revolution: all this stands ready for assimilation into modern economics. It is only the barrier of price theory which prevents.