



Taylor & Francis
Taylor & Francis Group

John Dewey and Economic Value

Author(s): John Fagg Foster

Source: *Journal of Economic Issues*, Dec., 1981, Vol. 15, No. 4 (Dec., 1981), pp. 871-897

Published by: Taylor & Francis, Ltd.

Stable URL: <https://www.jstor.org/stable/4225100>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <https://about.jstor.org/terms>



JSTOR

Taylor & Francis, Ltd. is collaborating with JSTOR to digitize, preserve and extend access to *Journal of Economic Issues*

John Dewey and Economic Value

Careful reading of the opening sections of the preceding paper suggests that Foster's reconstruction in economics rests on fundamental philosophical differences with orthodox theory. One way to clarify those differences is to consider the nature of scientific theory itself.

Scientific theory identifies significant data relating to a problem and hypothesizes the relationships existing among the data. It is the best way humans have devised for understanding the universal experience of changing phenomena conjoined with unchanging functions, of discontinuity in the presence of continuity. In order to analyze such experience, theory must distinguish continuing factors from those that are situational and temporary. Turning to economic theory, one finds the orthodox tradition taking a given structure of wants and institutions as continuing factors—as given data in a particular problem—and taking price, supply, and demand as the chief variables.

In opposition to this position, Foster asserts that wants and institutions are always situationally determined and thus are not genuine continuing factors. He identifies as continuing factors the functions that must be carried out in order for the life process to continue. For example, providing nourishment to the body is the function that eating food must carry out, while the particular materials identified as food by any culture are situationally determined and may change as dietary knowledge advances. Therefore, in solving a particular problem the state of the arts is taken as a continuing factor, specifying the best known way to carry out a function, and wants and institutions are the chief variables that must be adjusted to solve the problem.

The judgment that structures must be adjusted to permit the optimal carrying out of various functions is known as the instrumental theory of value, since the criterion of judgment employed is the instrumental efficiency of behavior patterns. Because Foster found economics employing another theory of value (utility), he concluded that reconstructing value in economics was a prime requirement for improving the discipline.

One of Foster's earliest statements of the need to base economics on scientific value theory was also one of his most extensive. In 1942, while an instructor at the University of Texas, he wrote the following paper for Ayres. Although the writing is clearly less mature than that in the preceding paper,

Foster has since found little that needs revision. Perhaps the major subsequent change has been to reject this early identification of J. M. Keynes with the utilitarian tradition.

Following the paper's introduction is a methodological section in which Foster examines the possibility of a science of economics. He rejects the position that scientific-logical inquiry is value free, arguing that all inquiry—physical no less than social—has social consequences that must be appraised. He also rejects the position that the social sciences are different in kind from the physical sciences, and thus are subject to distinct logical requirements. The difference, Foster maintains, is that the physical sciences are more developed than the social sciences. His explanation is that practitioners of the latter still cling to the belief that their sciences must be based on ultimate ends—intrinsic meanings imputed to phenomena such as "value." The significance of this crucial section will be more apparent after one reads "The Fundamental Principles of Economics," which appears later. In particular, one will want to compare that later statement with this early expression of the principle of technological determination (p. 875) and the principle of recognized interdependence (p. 878).

This essay is an attempt to clarify the meaning of the term *value*. All economists use the word, and this fact would lead one to suppose that *value* is subject to definition, or at least carries a constant core of meaning sufficiently peculiar to allow independent identification. A great many theories of how value arises and how it is to be measured clamor for attention, but the meaning of what it is that arises and what it is that is to be measured is seemingly assumed. This arouses suspicion. Perhaps *value* has been used to designate no particular concept—but we shall see about that.

For the existing state of discussion shows not only that there is a great difference of opinion about the proper theoretical interpretation to be put upon facts, which might be a healthy sign of progress, but also that there is great disagreement as to what the facts are to which theory applies, and indeed whether there are any facts to which a theory of value can apply. For a survey of the current literature of the subject discloses that views on the subject range from the belief, at one extreme, that so-called "values" are but emotional epithets or mere ejaculations, to the belief, at the other extreme, that a priori necessary standardized, rational values are the principles upon which art, science, and morals depend for their validity.¹

John Dewey comes into the picture because of a failure on the part of the economists. They have failed to produce a theory of value which does not violate every requisite of scientific reflection and explanation; this despite the fact that all economic theory has, of necessity, to do with value in some connotation or other. This side of nihilism, some concept of value

is a necessity in dealing with any problems at all. But this is not to say that value must be an occult, all-pervading “something” that is *inherent* in any object or event; far from it, as we shall see. The failure by the economists to produce an acceptable theory of value has led to “lament for economics” by those who recognize the inadequacy of orthodox theory.² And these persons’ failure to continue on to a positive reappraisal of economics results in the meaninglessness and doubt of nihilism. The character of that reappraisal is most maturely stated by John Dewey, and that is why he is brought into this study.

The problem of value as indicated here is very difficult to handle in “economic” terms. Its difficulty does not derive from complexity, but from novelty. It is new in its full realization, if indeed it is yet fully realized. The new is always difficult, and particularly so if it replace old concepts or habits, and very much so if the new cannot be handled in terms habitually used in handling what it replaces. There is an “inalienable and ineradicable framework of conception which is not of our own making, but given to us ready-made by society—a whole apparatus of concepts and categories, within which and by means of which all our individual thinking, however daring and original, is compelled to move.”³ The “apparatus of concepts” requisite to handling the problem is at hand, but it is so new in the field of economics that much blundering is occurring and is to be expected. Even an economist of the caliber of J. M. Keynes, with his appalling erudition, fails to see his key problem, although he does realize the inadequacy of his habitual “apparatus of concepts.”⁴ His gigantic accomplishment in constructing new tool concepts and new formulas is enlightening, although it is, in a way, lamentable—lamentable in that it is built upon a system of value assumptions no longer pertinent, if indeed they ever were. He tears down the amazing neoclassical house and builds a much more substantial and useful structure on the same foundation.⁵ And that foundation is already demonstrated to be imaginary in most part.

Then the problem is to state *the* theory of value. To do this adequately would require a much fuller treatment than is possible within the limits necessarily imposed on the present study. Here, it is an indication of the theory of value rather than an adequate demonstration of it that is contemplated. It will, of necessity, be diffuse. But it is hoped that the effort will clarify the understanding of the present writer at least.

Procedure

Since the purpose of this study is a statement of the theory of economic value, the initial effort is to determine whether economic phenomena can

possibly be treated logically. This part of the study proceeds in view of Dewey's demonstration of the nature of logical inquiry. Then the historical development of value concepts is considered. This is done in order to throw some light on "those dimly conceived presuppositions," an understanding of which is held to be the most important contribution of economic history. This should clarify, somewhat, the conception of value embodied in current orthodox economic theory. As will be seen, the embodiment is sometimes tacit, sometimes explicit, and sometimes denied altogether; but it is real, whether or not denied, and this of necessity. To trace the history of a concept such as *value* from ancient to modern times is, if done in much detail, precluded by limitations. Accordingly, this phase of the treatment is in the character of an outline sketch, but it is hoped that sufficient continuity is maintained for the purpose at hand. It will be noticed that a great many theories are left out, and that many others are hardly more than mentioned. No discounting of the relative importance and validity of these theories is intended. Rather, they are either offshoots from the main line of development or are not connected in an important manner to the evolution of notions embodied in the widely accepted theoretical formulation current in economic thought at the genesis of the theory, which is the point in this study. Finally, the current conglomeration of views is considered. The conglomerate situation will be seen to be a result of the collapse of orthodox value theory.

Against this background, the technological theory of value is brought as nearly as possible into focus.

Possibility of a Science of Economics

Science and Social Environment

"A subject which admits to the dignity of law statements solely based on logical manipulations of verbal assertions forfeits any right to be regarded as a science. In science the final arbiter is not the self-evidence of the initial statement, nor the facade of flawless logic which conceals it. A scientific law embodies a recipe for doing something, and its final validification rests in the domain of action."⁶

It has been the fashion to speak of the physical sciences as "pure." Their purity is supposed to connote total disconnection from social values or, indeed, from any conception of value whatever. This superstition—for superstition it is—permits the scientist to work with a clear conscience. His inquiry is supposed to possess a peculiar quality separating it from all other considerations; it is held to be "pure" in some sense that dissociates

it from all ethical implications and responsibilities. And when some physical scientist indicates concern about the social meaning of his work, he is said to be "outside his field" (note Hans Zinsser).⁷ Science is science; yes, and business is business, too, but the businessman has been found out until he hardly dares to use his blanket excuse in literate company. The scientist's company is not less literate; he merely has not been found out. It is not that the "pure" scientist is a scoundrel; it is, merely, that he has not realized (or refuses to consider) the "widening circle of consequences" of his work. "Just as the validity of a proposition in discourse, or of conceptual material generally, cannot be determined short of the consequences to which its functional use gives rise, so the sufficient warrant of a judgment as a claimant to knowledge (in its eulogistic sense) cannot be determined apart from connection with a widening circle of consequences."⁸

And the continuum of the widening circles of consequences does not stop at the physical boundary of the scientist's immediate problem. In a very real sense, the scientist determines the social environment. Technological development, which is continuous with inventions in "pure" science and the seeds of which are fertilized in the scientist's laboratory, is the most obviously changing aspect of man's environment. And it is this changing which, at bottom, gives rise to the inadequacy of institutional arrangements instituted on the basis of former technological situations. This is a grave responsibility to lay on the shoulders of persons unaccustomed to thinking in terms of social consequences. It would be well that the scientist realize that "the notion of the complete separation of science from the social environment is a fallacy which encourages irresponsibility, on the part of the scientists, regarding the social consequences of their work."⁹

Of course, the recognition by scientists of their social responsibility would not render to logic all the plain and fancy superstitions. The results of the development of physical science are, in large measure, not in the hands of scientists. They are the result of all the items in the panorama of organized human relations. That is why "science is an important part of education, not because it satisfies curiosity, but because intelligent citizenship is no longer possible unless we understand the place of science in the everyday life of everybody."¹⁰ For that matter, it always was important and for the same reason. The difference is that the results of science have come to occupy such a large part of the life of those peoples conditioned by the Industrial Revolution that its significances must be studied directly and as a whole in order to be grasped. If the aim of education is "seeing that as far as possible every citizen has some basis for rational judgment about the things which most closely affect his or her social welfare,"¹¹ the

importance of some understanding of the sciences and their bearing on the individual's life becomes apparent. Furthermore, the implications, in terms of welfare, of the present state of the industrial arts are so deviously connected to the "everyday life of everybody" that some *detached* examination is necessary for adequate understanding. The only organized institution in modern democratic society offering any hopes of *deliberate detachment* is the school. Then that aspect of education called "school" becomes the most obvious custodian of this function. The schools must give the requisite detached examination, if it is given at all, to every citizen.

That technological applications have a profound influence on human relations really need not be argued. Technological change

is the chief determining condition of social relationships and, to a large extent, of actual cultural values in every advanced industrial people, while they have reacted intensively into the lives of all "backward" peoples. Moreover, only an arbitrary, or else purely conventional point of view (itself a cultural heritage from earlier periods), can rule out such consequences as these from the scope of science itself.¹²

The divorcement of science from social environment is purely a matter of words. No such existential divorce is possible. The divorce decree may be pronounced by the patriarchs of physical science, but science and social environment continue to live together.

*The Social and Physical Sciences:
Real and Imaginary Differences*

The physical sciences have, in most part, attained the state of inquiry that is logical. That is to say, they are carried on in terms of the causal interconnectedness of sequences of events and/or objects. The "meaning" of any particular item in any sequence is in terms of its correlativity with other items in that sequence. "Meaning" in an ultimate, intrinsic sense just is not useful in the process at hand. The scientist's function is the determination of the places of the items in a continuum and in the extension of the continuum. Of course, he may, and does, stop short of the continuum's entry into social relationships and the consequent social-value implications. This has already been pointed out. But his function is logical as far as it goes. That is to say, it is scientific.

Logical analysis, or scientific analysis, has no need of an ultimate end in view. This is apparent from what has just been said about the function of science. In tracing a sequence in terms of the causal interconnectedness of the items in the sequence, the ends are *discovered* as the inquiry pro-

ceeds; they are not predetermined by immaculate conception or handed down from "on high." They are the items themselves; and short of some sort of magic, they can be nothing else. This should not be misunderstood. It is not to say that scientists do not evaluate—they do. But the valuations are in terms of the consequences, not in terms of a predetermined ideal. Scientists have ends-in-view (Dewey's usage) all the time. These are estimates of value in terms of probable consequences of the then present state of affairs. The ends-in-view, that is, the expected consequences, are stated in terms of hypotheses, each of which is more or less probable in view of past experience; they are not stated in terms of what the consequences *must* be, because, no matter how much they *ought* to be, when they are determined, they *are*, whether they ought to be or not. And when the ends-in-view are determined, they become items in the continuum and give rise to new and further ends-in-view, and so on *indefinitely*.¹³ Thus, science continues to broaden, extend, and (as Thomas Huxley would put it) destroy beautiful theories with ugly facts. Facts cannot be argued with, try as we may. Such is the nature of science.

Then what about social science? Is it science? Does it and can it satisfy the requirements of logic? Let us see.

Frequently, it is asserted that the basic data upon which social studies rest are abstract, in the sense of being nonexistential, and are therefore not subject to being handled logically. This is partly due to the mistakes of students of social phenomena in considering "wants," "utility," "disutility," and even "happiness" as basic data. Such concepts as wants cannot be considered in the abstract, although much social theory is built upon the notion that wants, as such, are being used as the beginning-and-end datum in an explanation of "why we behave like human beings." The notion that wants are basic data is functionally disregarded in all social theorists' demonstrations. Little examination is required to see that wants are considered in such demonstrations as manifestations of human "instincts" or "human nature." But the weight of modern anthropology and psychology in denying the "human nature" idea as it is used in these social analyses is too heavy to bear in opposition. Then, if the particular theoretical analysis is to be held, the idea of "human nature" must be dissociated from the analysis. That verbal denial and tacit acceptance of a false premise do not, in themselves, dispose of the premise is apparently not clear to such analysts. Just why they continue to argue with facts is a large problem in itself. It is granted that such is the case in much social theory. But is this, of necessity, the nature of social considerations? Time was when astronomy was based upon abstractions, and of a very high order. Even yet, astrology has its millions of *believers*. No, social phenomena are

existential in quite as real a sense as any other phenomena. Also, these social phenomena have causal relationships. To think otherwise is to go off into magic again. Even wants become empirical when considered in terms of "shoes and ships and sealing wax and cabbages and kings." There is no inherent quality of abstraction (in the nature of superstition) in social relationships which precludes social inquiry being scientific inquiry. This is an imaginary difference.

Science and social studies are frequently said to differ in the degree to which the facts are disregarded in social theory as compared to physical theory; in the latter strict conjugate correspondence between factual data and conceptual description is adhered to. This is not an inherent difference in the two aspects of human experience; it is merely a state of affairs in the social studies. And even granted so, it is not as completely so as is commonly believed. "But the failure to satisfy the requirement of institution of factual and conceptual subject-matter in conjugate correspondence with each other is such a marked characteristic of the present state of the social disciplines that it is necessary to make the point explicitly."¹⁴ Social theory must attain a more accurate correspondence with factual data in order to warrant the name *science*. However, there is nothing in the factual subject-matter of social phenomena precluding its being correctly perceived in terms of its causal relationships.

It is true that the causal relationships of social phenomena may be more difficult of correct apprehension and unified organization than is the case in the physical sciences. But

the ultimate end and test of all inquiry is the transformation of a problematic situation (which involves confusion and conflict) into a unified one. That it is much more difficult to accomplish this end in social inquiry than in the restricted field of physical inquiry is a fact. But it is not a fact which constitutes an inherent logical or theoretical difference between the two kinds of inquiry. On the contrary, the presence of practical difficulties should operate, as within physical inquiry itself, as an intellectual stimulus and challenge to further effort.¹⁵

The difference is one of intensification of a difficulty. The physical sciences consider data which are comparatively easily isolated both as individual data and as types. The ability to isolate types results in the delimitation of physical sciences into convenient disciplines. In social inquiry, the items are, in causal terms, so complex and "intricately interwoven that the difficulty of instituting a relatively closed system is intensified."¹⁶ This is true of the entire field of social inquiry as well as subdivisions of it. Correct apprehension of social phenomena often involves knowledge in all the

social studies and sometimes in the physical sciences as well. Here, again, it is not that social inquiry cannot be scientific; rather, it has not usually been so. The same could, at some time or other, be said of every kind of inquiry.

Another real difference between the two kinds of inquiry is the comparative difficulty with which social inquiry is made effective. This, too, could be said of other branches of inquiry at times; note the resistance, even violence, when "Huxley let loose the Darwinian cat among the ecclesiastical pigeons." Also, it is said that Galileo suffered official torture because the earth revolved around the sun. The effectiveness of social inquiry is dependent upon a general understanding of the solutions as well as the answers. This is not true, to as great a degree, of physical inquiry. People will accept physical changes, a gravity meter or a refrigerator, without requiring to know how it works or why its result is produced.

Such is not the case in regard to the results of social inquiry. In the latter, the condition of application is understanding by the persons involved. In fact, the application of the results of social inquiry cannot be accomplished in any large measure without the results themselves being a part of the people's knowledge, and that knowledge must be operational, else the application is not accomplished. Here, again, misunderstanding creeps in easily. It is not meant that the results of social inquiry must be in fact operative before they can be understood. This would, in view of the previous statement, be a paradox. In all logical inquiry, hypothetical ends-in-view are a requisite condition. They are the criteria allowing selection of data to be used as means in resolving a problematic situation. Otherwise, any datum would be as meaningful in reference to a given inquiry as would any other datum. Selection of data is necessary; otherwise, there would be mere hodge-podge. The selection is made in reference to the ends-in-view. It should be emphasized again that the ends-in-view are hypotheses. If they are taken to be *the answer*, then inquiry ceases to be logical; it becomes mere excuse hunting. But the point is that the ends-in-view are beyond the boundaries of present existential knowledge; they are hypothetical resolutions of problematic situations. And until a problematic situation is resolved, the end-in-view remains a hypothesis; upon resolution, the end-in-view (insofar as it corresponds with the resultant fact) becomes an item of knowledge in the logical sense, that is, in the sense of its having meaning in terms of its correlation with other items in the continuum of which it is a part. Social inquiry need not deviate from logical inquiry in this regard. It does so only in that, and insofar as, the actual conditions of its problem are not determined. And, of course, "the futility of attempting to solve a problem whose conditions have not been deter-

mined is taken for granted.”¹⁷ This is as true of physical inquiry as of social inquiry.

A further alleged difference between inquiry applied to physical and inquiry applied to social problems is the difference in ultimate ends and in the character of the determination of those ends. It is held that the physical sciences have no need of an ultimate end (as indeed they have not), but that social inquiry is always in view of such an end. The error in this distinction has already been pointed out and need not be elaborated here. But the character of the determination of the ends may bear more explicit statement. It flows from the allegation of the ultimate and predetermined end held in view in social inquiry. If this allegation be granted, the distinction holds true. Then theoretical controversy in social science would concern intrinsic truth or falsity, whereas in the physical sciences it concerns “the efficacy of different conceptions of procedure.”¹⁸ The concern of intrinsic truth or falsity is in terms of absolutes, and absolutes are static by definition. Within this pattern, the end is absolute, and procedures are valid only insofar as they are in harmony with the static pattern that is the *end*.

But the Darwinian cat has devoured many a social pigeon; social science is not without its dynamics and evolution. Veblen points out that “the phenomena of growth and change are the most obtrusive and most consequential facts observable in economic life.”¹⁹ And the conception of social evolution as propounded by Veblen is observed with various degrees of appreciation throughout social science discourse. The social sciences are, at this point, doubly burdened: They are concerned not only with the technological continuum but also with the institutional aspects of human experience. This happens not to be true of the physical sciences only by virtue of their incompleteness. In fact, the social sciences are continuous with all other sciences. They merely inquire into those aspects of experience which are arbitrarily outside the delimitations of physical science. And the fact that in the social sciences logical procedural formulas are more difficult of application because of institutional interference does not relegate social science beyond logical inquiry.

Economics as a Science

The answer to the question as to whether economics is a science is implicit in what has already been said. It is. The subject-matter of economics is existential, and the causal relationships of the items in the continuum with which economics is directly concerned are subject to intellectual com-

prehension and conceptual formulation. Hardly more could be said of any discipline which has attained the state of logical analysis.

In so far as modern science inquires into the phenomena of life, whether inanimate, brute or human, it is occupied about questions of genesis and cumulative change, and it converges upon a theoretical formulation in the shape of a life-history drawn in causal terms. In so far as it is science in the current sense of the term, any science such as economics which has to do with human conduct, becomes a genetic inquiry into the human scheme of life; and where, as in economics, the subject of inquiry is the conduct of man in his dealings with the material means of life the science is necessarily an inquiry into the life-history of material civilization, on a more or less extended or restricted plan.²⁰

But it is, as Dewey says, "only recently that there has been sufficient understanding of physical relations (including the biological under this caption) to provide the necessary intellectual instrumentalities for effective intellectual attack upon social phenomena."²¹

For long ages before the "necessary intellectual instrumentalities" were available, the "theoretical formulation" of which Veblen speaks was in terms of ultimate significances. Consequently, the formulation often did violence to the facts. Since man knew very little about his world, he believed much about it. But as he collected his data, as his knowledge grew, the realm of his belief became less nearly all-inclusive. It is impossible for him to *believe* something he *knows* in any logical sense. And with every extension of his knowledge, he found the new items fell into causal sequences just like in "his own back yard."²² Related causal sequences were conjoined into the sciences, wherein each item had meaning in terms of its relation to the other items in its sequence. Thereafter, no magic revelation was necessary to give significance to the items whose correlativity with other existential items had been established.

Economics is one of the latest disciplines to attain sufficient correlative data with obvious and mandatory causal relations to stand alone, that is, to stand without occult interpretation to give it meaning. Economics is, even now, still struggling with the goblins of its childhood; they have a habit of reappearing in their accustomed places. "Failure to examine the conceptual structure and frames of reference which are unconsciously implicated in even the seemingly most innocent factual inquiries is the greatest single defect that can be found in any field of inquiry."²³ This failure is a hindrance to the development of all the sciences, but it occurs very easily in economics. And it occurs there more easily because the subject-matter of economics is closely identified with *ultimates* in the sense of frames of

reference, the validity of which is beyond “proper” question. Individual items in the subject-matter of economics are, even yet, thought to have intrinsic meaning within themselves—“value,” for example.

Notions about Value

“Tell me! If it wasn’t true why would I find it so easy to believe? There’s proof right there!”²⁴

Before a statement of the theory of value is attempted, it is well to trace the evolution of notions about value. This should help to clarify the situation which gives birth to the theory.

The Ancients

“Man cannot begin to theorize about the economic process so long as this is of so simple a character as to require no special explanation.”²⁵ Primitive man had no need of an explanation of the economic significance of his activities in making a living and of the causal relations of those activities. To him they were obvious. No problem of understanding arose since the relation of each of his economic activities to all the others was obvious. He was, in most part, his own economy. But as development of the industrial arts and specialization of economic function progressed, the individual’s relation to the whole process was not so apparent.

The Greeks were the first to offer an analytical explanation of the economy. Their ideas were articulated best, perhaps, by Aristotle. It seems to this writer that Aristotle anticipated the content and rationale of every subsequent theory of value except the one which is the point of this phase of our study. He pointed out the dual uses of any article. “The uses of every possession are two, both indeed essential but not in the same manner; for the one is strictly proper to the thing, the other is not; as a shoe, for instance, may be either worn or exchanged for something else; for both these are uses of the shoe.”²⁶ There is the use-value and exchange-value of the classicists. Aristotle states the bullion-wealth idea of the mercantilists but disavows it.²⁷ He gave the physiocrats their cue about land as the source of values.²⁸ His condemnation of usury was used by the canonists.²⁹ Aristotle considered value incidentally in his major concern, which was “justice.” He had no positive theory of value; value is an assumption taking the form of utility and measured by labor. He seems to have had an idea of just price as the exchange of equal values in terms of labor. But labor, as in later theory, differed in quality, and the qualities’ differences

had to be accounted in the just exchange. Aristotle's idea, worked to its conclusion, is the tautology which was worked out by David Ricardo.

The Canonists

All of Aristotle's notions about value were, in some form or other, incorporated into the canonists' teachings. The idea of "just price" was maintained throughout the early history of Christian Europe, although "it is impossible to discover what, in the eyes of the theologians, determined that price or to explain it in terms which would have any similarity to modern economic theories."³⁰ They seemed to implicate the labor-cost theory in their concept, although they did not state it as such. Albertus Magnus states that goods "containing the same amount of labor and expense" should be exchanged.³¹

The authoritarian position of the church made "just price" merely "just price." But as trade developed, the position of the churchmen managed to flex enough to allow practices which could hardly be done away with. Aquinas allowed variation from the "just price," just as he allowed profit, on the basis of necessity resulting from the "fallen state of man." But some semblance of basic justice was always maintained. The merchant was allowed profit as payment for his labor only, but it was to be enough to keep him at his *accustomed* standard of living. This, in the long run, allowed any rate of profit. What it actually allowed was the conventional price.

A century after Saint Thomas, the justice of price was expounded by Saint Antonino on the basis of a concept of disutility. He posits, for example, "the case when a man needs something, the loss of which will be a grave inconvenience to the owner. The latter may in these circumstances demand a higher price, not looking to the value of the thing in itself, but its value to him, *i.e.* not looking to the thing, but to the inconvenience its loss will occasion him."³² Even interest is rationalized by Saint Antonino. This was done by pointing out that the money involved could have secured capital, and the capital could have earned a profit; therefore, the loss of profit could justly be charged as interest.³³ But Saint Antonino held throughout that gains were not ends, but merely means to the ultimate object of all activity, namely, God's Grace. Nevertheless, the sanctity of many economic activities varied.

With an occult ultimate, *anything* can be rationalized as a means. And the canonists were not peculiar in this respect. Their doctrine modified as commerce expanded, but it was unable to avoid complete collapse as the

guide to economic conduct with the advent of the Reformation and the concomitant separation of religious doctrine and economic activity. Although the "language of the canonists was to wane, the substance of their theory was to wax in the centuries to follow."³⁴ It was to flower as the "heavenly city of the eighteenth century philosophers."³⁵

The Mercantilists and Physiocrats

The fifteenth century witnessed the development and common application of organizational and mechanical techniques that gave rise to commercial capitalism. Maritime trade grew with the development of navigational instruments; farming was beginning to lose its feudal characteristics in response to developments in farming techniques and markets; and the organization of the distribution side of the economy was in the direction of large, organized markets monopolistically controlled under official protection. This general pattern became more pronounced until, by the sixteenth century, the commercial capitalist was supreme. This phase of the economy's evolution was reflected in a body of economic doctrine, generally called mercantilism. Its rationale had been anticipated in the ideas of Oresme, who wrote during the fourteenth century and who laid the foundation for a money-centric rationalization of the new order. The fear of unsold goods, which is any merchant's bugaboo, prodded economic thinking in the direction of money as the central factor. And this money-centricity carried over into the classical scheme, the classical disavowals to the contrary notwithstanding. The merchant was sovereign, and what served the merchant became the order of the day, from the constitutional monarchy (John Locke) to a forced favorable balance of trade.

Accordingly, notions of value were consonant with the interests of the merchant. They were notions having to do with exchange. The idea of money as a store of value was the notion dominating economic considerations of "value." Of course, this is not a theory of value as such; it is a theory of how a nation becomes rich, how it can acquire values, whatever they are. The utility concept seems to be assumed without sufficient challenge to make it articulate. Locke's analysis indicates that labor is the source of value, but that was inconsequential; what was important was that values could be accrued by sharp trading. Aquinas's idea of mutual advantage was to slumber awhile yet.

During the seventeenth century, the merchant capitalist was challenged by an inevitable outgrowth of his own activities. The letting-out system of production was increasingly practiced and led to the primitive factory, which was nothing more than bringing the workers to the material instead

of distributing the material to the workers. This facilitated common use of tools owned by the merchant industrialist. And as power tools were developed, ready application was found in the primitive factory.

This development of the factory system gave rise to a reconsideration of the mercantilistic analysis. Emphasis on trade was challenged by production, and a flock of thinkers were at hand to express the transition in economic theory. Sir William Petty, Locke, David Hume, and other British thinkers, along with François Quesnay and the physiocrats in France, provided all the ideas synthesized by Adam Smith. Their analyses were the transition from mercantilism to classical economics. Petty's analysis of rent presents the labor theory of value and the subsistence wage theory, which is the labor theory of the value of labor indicated by Smith and elaborated by Ricardo. The natural-order assumption was emphasized by the physiocrats, although it was by no means absent from the English pattern of thought. The physiocrats recognized *prix fondamental* (labor-cost theory), but they were most interested in *prix courant*, which depended, said Quesnay, "on the rarity or abundance of production, or the more or less competition of buyers and sellers."³⁶ This is, of course, the supply and demand theory held by Smith. But it is Petty who furnishes the beginning of the classical labor theory of value, which carried on through to Ricardo and the later successors to Adam Smith. Petty also indicates Marx's conclusion regarding the production of a surplus by assuming that the laborer would reduce his efforts directly as his wages were increased above the subsistence level.³⁷ This would indicate the possibility of a surplus since the laborer would produce most when paid least. But for Petty, the surplus comes from rent.

Throughout this period, labor is presented as the source of value, although there is no unanimity on labor as the measure of value.³⁸ Here, again, the measure and source of value are theorized, but the nature of value is not stated. Its character is assumed, and it seems to be of the nature of the utility concept. But its explicit statement as such had to await the neoclassicists' formulation in terms of the hedonistic calculus.

It should be mentioned here that Jacques Turgot does list "ability to satisfy a want" among other factors serving as criteria in estimating value.³⁹ L. H. Haney states that, "on the whole, the Physiocrats did not regard value as inherent in things. While they seem to have considered utility as inherent in goods, they recognized the difference between utility and value—as others had done before them."⁴⁰ But Friedrich von Wieser points out that exchange-value theory is always based on the use-value notion, although use value may be no more than an assumption involved in exchange-value considerations. His notion is characterized as follows

in the preface to *Natural Value*: “It is the same with goods made to sell; that is, to exchange: their ultimate basis is always use value—the use value of the things for which they exchange.”⁴¹ He says later that “exchange value, even when considered as perfect, is, if we may so call it, a caricature of natural value (use value).”⁴² And so it has been.

The Classicists

The end of the eighteenth century saw the Industrial Revolution’s development and its economic, social, and political consequences reach the point at which a new formulation of economic theory was to be expected.⁴³ It could be expected because a new economic order existed and had not been systematically rationalized, although all the items in the rationalization were already at hand. Adam Smith and his successors furnished the new order’s rationale, which has come to be called classical economics, and its theory of value the classical theory of value.

As Eric Roll points out, it is not easy to give a succinct summary of Adam Smith’s theory of value.⁴⁴ He had, it seems to this writer, three theories of value: one of use value and two of exchange value.

Of “value in use,” as he calls it, Smith has little to say.⁴⁵ He, as had his predecessors, more or less assumed its character to be the ability to satisfy needs or wants. He speaks of it as utility; but this is considered a constant of any given object and, to that extent, is to be distinguished from later diminishing-utility notions, in which the “utility” is the varying psychological reaction of the person rather than a quality inherent in the object.

Smith never became entirely a formal logician. He kept his eye on the economy, at least slantwise, and felt the necessity for a theory’s meaning and validity to be in terms of its conjugate correspondence with existential phenomena. In this regard, he was far superior to his successors. And it was this feeling for conjugate correspondence of concept and fact that kept him from forming a theory that held “universally” and “eternally” in the sense that Ricardo’s did. Smith’s theories were “according to the situation”; and although he evidently considered capitalism the natural (in the sense of “normal”) situation, it is by no means clear that he considered it inevitable, everlasting, and necessary. Even his idea of “human nature” is not clearly based on directly inherent “instinct.” For example, in his explanation of the division of labor as an outgrowth of “the propensity to truck, barter and exchange one thing for another,” he says:

Whether this propensity be one of those original principles in human nature, of which no further account can be given; or whether, as seems

more probable, it be the necessary consequence of the faculties of reason and speech, it belongs not to our present subject to inquire. It is common to all men, and to be found in no other race of animals, which seem to know neither this nor any other species of contract.⁴⁶

Here, human nature is not a matter of “instincts” in the universal and eternal sense. And so it was that Adam Smith had two theories of “value in exchange.”

His explanation of exchange value in a primitive economy is properly called the labor-cost theory. When capital and labor are common to the same man, no man will exchange an object requiring more labor for one requiring less, since he has merely to make the desired object or find one in the possession of someone who wants the object he has for exchange. In the primitive situation, labor is the entire cost and need not be unequally exchanged. Then, assuming accuracy of human judgment regarding its interests, Smith held that labor would exchange for equal labor in the form of objects.

But when labor and capital are no longer common to the same man, other factors of cost have to be considered and accounted for. To explain exchange value under this situation, Smith proposed his labor-command theory. It stipulates that, since labor was still the “real” measure of value, the market value was determined by the amount of labor each of the three factors in cost could command in exchange. Just why this should not be true in primitive society also is not shown. It would seem that in primitive society it was easier to get equal exchanges of “real” value. The distribution of “embodied labor” on the basis of what each factor could command occurred in the market by “higgling and bargaining.” From this, Malthus developed his supply-demand theory in opposition to Ricardo’s labor theory, which took as its point of departure the labor-cost theory proposed by Smith.

The divergence of value theory into two channels represented by the controversy between Thomas Malthus and Ricardo was motivated by the conflict in the interests of the two groups struggling for sovereignty in England at the beginning of the nineteenth century. Reverend Malthus represented the interests of the landed gentry, and stockbroker Ricardo represented the interests of the industrial capitalists. The specific point of difficulty was in regard to the Corn Laws—whether grain should be admitted free of tariff.

Ricardo opposed tariff restriction on food imports on the basis that it would raise the wages of labor in proportion to profits. This would reduce the rate of accumulation of capital, since it is out of profits that capital is accumulated. By denying that demand could have any effect whatever on

value, and by pointing his theory at the *proportions* of the shares of the total production going to each of the factors, Ricardo was able to indicate that high food prices would be ruinous to the nation's economy. They would be ruinous because a greater portion of the nation's labor supply would be required to produce food (the labor cost of labor) because of recourse to poorer land or intensification of cultivation. The greater cost of labor (labor used in producing food) would result in a smaller *portion* of the total production left for capital accumulation, and this was detrimental to the nation. Ricardo was able to complete the circle by allowing the value of labor to vary. Then, since the value of labor itself was the labor required to produce its sustenance, any variation in total value could be explained in terms of its labor cost, even though the man-hours remained constant.

Malthus went the opposite route. By making "demand" the determinant of exchange value (labor command) and by pointing his theory at total production rather than at proportions of the total going to the factors, he was able to indicate that high food prices were necessary to welfare, even to the possibility of profits. Profits could be collected only if sufficient demand were extant to withdraw the goods from the market. And it was impossible for labor to withdraw the goods because there would be nothing left for capital. Hence, it was from unproductive groups (mostly landlords) that effective demand derived. Then it follows that the greater the rents, the greater the demand, and hence profits; and the higher food prices were, the greater would be rent. Thus, the interests of the landlords were made to be in harmony with those of society in general. Incidentally, the free importation of food was shown to be a mistake. This, in the rough, was Malthus's position.

The development of economic theory subsequently went in the direction indicated by Ricardo. Insofar as he differed from Malthus, Ricardo was serving the victors in the struggle for sovereignty, and economic theory followed suit. Malthus was almost forgotten, except for his population doctrine, until quite recent events focused attention on the problem of the insufficiency of effective demand. In the Ricardian analysis, depression is impossible; in the Malthusian analysis, it is inevitable.

For both Ricardo and Malthus, as for Adam Smith, the *meaning* of value was assumed to be utility in the sense of want-satisfying ability. Neither felt the necessity for examining this assumption which had characterized all theories of value. Their concern was what determined exchange value, or price, and what caused relative variations in price. These relative variations in price and consequent proportionate divisions of total in-

come were the entire concern of Ricardo's value theory. His and Malthus's unconcern about the meaning of value reflected the universal acceptance of the basic concept as a part of common sense. It was not until Marx demonstrated that the Ricardian analysis in terms of labor could be used for quite different purposes that economists felt obliged to connect directly the determination of value (price) and value itself (utility).

Jean Baptiste Say took more direct account of the connection between price and value than did any of the English writers of his period. In his *Treatise on Political Economy*, published in 1803, he stated that utility is the capacity to satisfy wants and that value originates in utility. He went on to show that price is the measure of value and that value is the measure of utility. Hence, price measures utility, from which it originated. Price measures (determines the amount of) utility, and utility determines price—well, well, well! Taken together with Say's law of markets, everything becomes equal to everything else, and the whole is comparable to "the wonderful one-horse shay" without the proclivity of the deacon's masterpiece for sudden collapse. But such equilibrium has always been the content of orthodox theory (minus Malthus and Marx). Say was the first to disavow effectively the labor theory of value and attempt a direct demonstration of the reflection of utility in price.

Nassau Senior sought to retain the Ricardian analysis, modified so as to answer the difficulties involved in the labor theory of value. He did this by admitting the cost of production theory, which had been developed out of Ricardo's labor-cost theory, together with allowance for utility and scarcity as determinants of value. He even mentions disutility but fails to use it in his demonstration. In his demand and supply explanation of price, he defines demand as utility, and he defines supply as the result of three factors: abstinence, nature, and labor. He starts by stating that the "obstacle" to supplying goods "consists solely in finding persons ready to submit to the labor and abstinence necessary to their production."⁴⁷ Here is the justification for profits which Ricardo had not furnished and which had resulted in absurdities on the part of economists in search of it. The elder Mill, for example, had made time equivalent to labor, but, of course, that was unsatisfactory, even to him. But here was something that put capital ownership on the same basis as labor, and the obvious development was not missed by later economists. They equated the two in terms of disutility, and the validification of ownership was complete. To cinch the case, John Stuart Mill added the "risk" to the capitalist's justification and pronounced that economic theory had reached perfection; thereafter it would be merely a study of the teachings as portrayed in his demonstrations.

The Neoclassicists

Beginning in about the 1870s, a new twist was given to economic theory. The new, of course, had its seeds in its parent. All the items in neoclassicism were to be found, at least in rudimentary form, in the classic formulations. But the new is sufficiently different to warrant a separate designation and similar enough to carry the family name. It is appropriately called neoclassicism. The historical outlook of the new orthodoxy is different in that it is less aware of its historical significance. The classicists felt themselves a part of a brave new world; the neoclassicists were born to the colors. The classicists were called upon for a demonstration of their position; the neoclassicists were complacent in carrying on the tradition and disregarding heterodoxy (until just now). They could do this successfully because the economic order they were rationalizing was rolling on with easy mastery (until just now).

The core of neoclassicism is embodied in W. H. Jevons's statement that "value depends entirely upon utility."⁴⁸ Although Jevons had been anticipated in this by Heinrich Gossen, he is considered the founder of the new classicism. He stated the idea of marginal utility (although he did not use the phrase), which is the view of utility forming the basis of all neoclassical theory. He also developed the converse, disutility. As conceived by the neoclassicists, utility is a function of people, not a property of goods. This anthropocentricity is, of course, the same old utility looked at from the other end. Jevons and Aristotle both start from the same place: human wants and the means for satisfying them. Human satisfactions are maximized in terms of the greatest amount of utilities through the operation of free competition in an open market. Maximum utility is secured when the disutility represented in cost equals the utility of the good. This equilibrium state is always reached in free competition because the disutility incorporated in demand will just equal the utility offered for sale. If more utilities (goods) were offered at a price to secure the equivalent of which less disutility would have to be experienced, then the utility would be destroyed (consumed) until the reduced utility of each unit would just equal the disutility experienced to secure its price. Or, assuming perfect bargaining, bidding would occur until disutility and utility were equalized before any goods changed hands. Either way, equilibrium results. That is to say, cost equals price, and demand equals supply, and values exchange for equal values—what Say said 138 years ago. Also, it is a just price since equals exchange for equals. Jevons thought so, Ricardo thought so, Aquinas thought so, and Aristotle thought so. When equals exchange for equals, and in doing so maximize human satisfaction, certainly no objec-

tion could be offered. Yes, the language of Saint Thomas and Saint Antonino has waned, but the substance of their theory of value has waxed.

All this has not escaped notice. Many have realized the tautological nature of the neoclassical explanation as well as the demonstration of the classicists, and the classicists had already pointed out the deficiencies of preclassical economic thought.

At this juncture, Thorstein Veblen arose and "compelled a whole generation of economists to search their hearts lest the truth be not in them."⁴⁹ And upon search, under the prodding of Veblen's amazing and provoking critical analyses, many thinkers began to reconsider the basic notions and assumptions of their economic thinking. Even those most deeply embedded in the neoclassical conceptology began to have misgivings (note Vilfredo Pareto's suspicion of the utility concept as early as 1896). This tendency toward doubt has proceeded until, at this writing, there probably is not one who does not hedge, at one point or another, on the orthodox demonstration. Some have sought to avoid the issue altogether (Gustav Cassel, for example) by developing a totally "empirical" theory allegedly without any value notion whatever outside the market. It all winds up in an elaborate formula for determining price if one price be given as a basic datum. But, since all prices in the formula are in terms of one another, if the required data be given, the formula would be useless, since the answers would already be known in the data.

Reaction to the demonstrated inadequacy of value theory sometimes has taken the form of nihilism and its skepticism toward meaning in any sense. Out of this attitude may come complete mental lethargy. It also is humus for positivism in the sense that a set of values may be chosen arbitrarily, and any and all rationalization necessary to its attainment is made admissible. Out of such stuff has developed the Nazi set of dicta.

The conclusion, then, to which the evidence leads, is that value theory, in every form in which it has appeared in economic writing and thinking, has been a rationalization of social status; in no case has it been a scientific explanation of economic phenomena, nor has it revealed "the law of motion" of any society. There is no essential difference, so far as its intellectual and social content is concerned, between the just price of the canonists and the value theory which corresponded to it, and the cost of production price of classical economics and the value theory which corresponded to it. The status of different groups has been rationalized by the different schools of thought, but the means of that rationalization have in every instance been the same theory of value.⁵⁰

If this be true, and every item of our report indicates that it is, what then? We have already said that economic phenomena can be handled

scientifically. Why have they not been so handled? In most part, the answer has already been shown in the complexity of subject-matter, in the intricacy of interconnections in that subject-matter, in the recent accumulation of the requisite data, and in the assumption of an ultimate end toward which the theory must point. The last of these partial answers grows out of man's ability to imagine himself set apart from all of nature and thereby to imagine himself an entirely separate stream of causation. He then makes a desperate effort to

combine the obvious empirical *fact* that objects are qualified with good and bad, with philosophic deliverances which in isolating man from nature, qualitative individualities from the world, render this fact anomalous. The philosopher erects a "realm of values" in which to place all the precious things which are extruded from natural existence because of isolations artificially introduced. Poignancy, humor, jest, tragedy, beauty prosperity and bafflement, although rejected from a nature which is identified with mechanical structure, remain just what they empirically are, and demand recognition. Hence they are gathered up into the realm of values, contradistinguished from the realm of existence.

Values are values, things immediately having certain intrinsic qualities.⁵¹

Despite the fact that *every* item of empirical evidence that man has points him out as continuous with all the remainder of the world, he still persists in thinking himself a beginning and an end all rolled into one. Then, what he "wants," he wants. Thus "wants" are taken to be basic data and need no validation outside themselves. This notion of self-recognition has been the root of the long, long story of man's inability to "understand" himself. The fact that he presupposes himself as, in part, a magic entity precludes his understanding himself in the sense that understanding is an operation in logic. Mysteries are *believed* in, not *understood*. And as long as man believed "wants" as basic data, as part of the "mystery that is man," he almost of necessity believed in value as "utility" or the capacity to satisfy wants. Then, you see, he was starting on the very bottom foundation of his nature as man, and on it he could, he assumed, build logically an accurate analysis of himself and his relations with other men. But the "logical" structures built upon that foundation changed with the economic weather. This should have caused him to reconsider his basic assumption, as indeed it finally did. But for long ages he was unable to look behind his "wants." When the requisite biological and anthropological data were available, man began to realize that he was a part of the total and was in no logical sense the "chosen tribe." As long as he was an end value as an individual and separate entity, he could and did arbitrarily

impute, through belief, any number of qualities to himself. And on those arbitrarily imputed qualities he built theories which could be of any number and have been very numerous. He finally built utility economic theory, which directly explained himself in terms of his "basic" nature, "wants." But then social anthropology demonstrates that "wants" are almost altogether institutional. This destroys the basic datum of man's explanation of himself in his relations with other people and with his physical environment. What then? How can he evaluate in regard to himself? He cannot avoid the issue. He cannot evaluate without some basis for evaluation.

The Theory of Value

"If, therefore we credit the spade at all—if we credit science at all—we are bound eventually to be forced to adopt it as our sole standard of truth and criterion of value and to dismiss institutional claims altogether as false and base."⁵²

We are now in a position to distinguish between logical and nonlogical inquiry. It has been pointed out that economic thinking has, until recently, been almost altogether nonlogical. But, since Veblen, dissatisfaction has become more and more apparent. His critical analyses were nothing less than an appeal for logical inquiry in economics, and his work has been the inspiration for a sincere effort to find the basis for, and operational function of, such inquiry. In the United States, the economic inquiry and criticism that have come from Veblen's demand for logic are called "institutionalism." The same climate of opinion is apparent in all the fields of social inquiry and in the "fine arts."⁵³ In every field, efforts are being made to find a logical analysis.

In economics, perhaps Veblen's major contribution was his demonstration of the distinction between institutional and technological aspects of economic inquiry and how the failure to understand and keep the distinction in mind has precluded the use of the word *logical* in describing the large body of economic analysis. This is in complete rapport with Dewey's demonstration of the nature and origin of man's erection of *a priori* structures (institutions) in his "quest for certainty." In *The Quest for Certainty*, Dewey demonstrates the emotional, nonlogical, even neurotic nature of these conceptual gyrations. Man has suffered from a feeling of insecurity in the hazards of his world. Objects and events in his life have always had meaning in terms of good and bad in a very real and obvious sense—they have helped or hindered his security and well-being. Man's capacity for imagination has allowed him to symbolize these qualities and then to set these symbols apart as separate entities having "meaning" in

themselves. He then can reason deductively from these imaginary realities to any conclusion he wishes. When the philosopher asks “what is goodness?” he is asking a nonlogical question, a question that can be answered in any fashion one chooses because it has no existential basis. And since it has no existential referent, the possible answers are infinite in number. *Anything* can be “true,” or “beautiful,” or “good” in that sense. There is no necessary answer, because there is no reality to be presented in the answer.

Economic analysis has proceeded usually on a similar basis. The ancient Greeks sought to analyze their economy in the light of “justice”; the canonists explained economic intercourse on the basis of “God’s Will”; the mercantilists used “national honor” as the sum end of economic analysis; physiocratic doctrine explains the “natural order” of the economic world; classical theory showed the working of “human nature” toward the establishment of “natural order”; neoclassical theory explained how “happiness,” maximum “utility,” and “equilibrium” were attained through the functions of the current economy. Each of these theories has been one of the infinite number of answers that can be made to the problem of value, if “value” is taken to mean an entity in itself. And this is why orthodox economic theories fell such easy prey to Veblen’s criticism. He had merely to show that they were nonlogical, that is, nonsensical, irrespective of the degree of internal complexity and consistency.

During the time that all this nonsense was going on, the economic actuality of making a living was proceeding. People have always been engaged in activities contributory to sustaining human life in its total. The expression “human life” is used here to mean all human experience in the verifiable, existential sense, whether it be listening to the music of Mozart or digging potatoes. The total existential functioning of human beings is what is meant—no mystic, self-contained entity is connotated in the word *life* as used here. Human life *means* functioning as a human being; it is the functioning that *is* life, not an expression *of* life. To use the word in any but this sense is to go off into magic again, and magic and logic are incompatible. Human life in this sense can be handled logically as part of the total inclusive continuum. Life can be treated in terms of the items constituting its continuum. In no other terms can it make sense; in any other terms it only makes magic. In the logical sense, life has no “ends” in the ultimate. Ultimates are, from the logical view, nonsense; life is a continuum, any item in which has meaning in terms of the other items with which each is causally related, and in no other terms can any item be said to have logical meaning. Also, no item in the continuum that is human life can be regarded as a cause alone—it is both cause and effect, and it

has no peculiar nature as a cause. There can be no *nature* of a cause. "Cause" applies only to the interconnectedness of the run of the facts. The *only* human experience has been with the run of the facts; no human (living) has had *any* experience with an ultimate in *anything*. To speak of ultimates is to speak of something of which man knows *nothing*. Yet, economists have spent great genius and multiple years of hard work explaining how ultimates are attained in the economy.

Economics is concerned with that aspect of human experience called making a living—the production and distribution of goods and services. What, then, is value in the economic sense? We have already shown that it cannot exist as a separate entity. It must exist along the run of the facts in the continuum that is the economy, and the run of the facts therein is a technological process. No imaginary situation ever produced one nail, or delivered one letter, or composed one song. The existential economic realities can be considered logically only in terms of their interconnectedness. And there is where value makes sense. Consider any item, either in the present situation or in the projection of the present situation: Does it add to the function that is called economic? If so, it has economic value; if not, it does not have economic value. Economic value is the degree of technological efficiency. It is as simple as that. This is, and always has been, the actual, functioning theory of value. People have always acted upon it in their economic functions, not forgetting that ritualistic functions are frequently confused with economic functions. In the actual provision of the means to function as a human being, each item in the process has value in proportion as it implements that provision. That is the logical meaning of economic value; that is the *only real* meaning of economic value that permits logical treatment in economic analysis and upon which a science of economics may be built.

The difficulty will be in stripping "economics" of its ritualistic content. This content is based upon some formulation of value theory which has been conceived in an effort to validate a social order rather than to explain the workings of the economy and to project its workings toward ends-in-view consonant with the technological process and its implications in terms of more adequate and efficient provision of the means of life.

Notes

1. John Dewey, "Theory of Valuation," *International Encyclopedia of Unified Science*, vol. 11, no. 4 (Chicago: University of Chicago Press, 1939), p. 1.
2. Barbara Wooten, *Lament for Economics* (London: George Allen and Unwin, 1938), *passim* (but particularly pp. 1–36).

3. Francis Macdonald Cornford, *From Religion to Philosophy* (London: Edward Arnold, 1912), p. 45.
4. J. M. Keynes, *The General Theory of Employment, Interest and Money* (New York: Harcourt, Brace, 1936), *passim* (but particularly pp. viii and 4–22).
5. *Ibid.*
6. Lancelot T. Hogben, *Retreat from Reason* (New York: Random House, 1937), p. 7.
7. Hans Zinsser, *Rats, Lice and History* (New York: Blue Ribbon Books, 1934).
8. John Dewey, *Logic: The Theory of Inquiry* (New York: Henry Holt, 1938), p. 490.
9. *Ibid.*, p. 489.
10. Hogben, *Retreat from Reason*, p. 55.
11. *Ibid.*, p. 58.
12. Dewey, *Logic*, p. 489.
13. *Ibid.*, pp. 493–97.
14. *Ibid.*, p. 491.
15. *Ibid.*
16. *Ibid.*, p. 487.
17. *Ibid.*, pp. 494–95.
18. *Ibid.*, pp. 506–507.
19. Thorstein Veblen, *The Place of Science in Modern Civilisation* (New York: Viking Press, 1919), p. 232.
20. *Ibid.*
21. Dewey, *Logic*, p. 492.
22. C. E. Ayres, “Dewey: Master of the Commonplace,” *New Republic*, 18 January 1939, *passim*.
23. Dewey, *Logic*, p. 507.
24. Mrs. Bungle, as quoted by C. E. Ayres on a preleaf in *Holier Than Thou*.
25. Eric Roll, *A History of Economic Thought* (New York: Prentice Hall, 1939), p. 23.
26. Aristotle, *Politics and Economics of Aristotle*, trans. by Edward Wolford (London: G. Bell, 1910), p. 21.
27. *Ibid.*, p. 22.
28. *Ibid.*, p. 25.
29. *Ibid.*, p. 29.
30. Roll, *History*, p. 48.
31. *Ibid.*
32. Rev. Bede Jarrett, *Saint Antonino and Mediaeval Economics* (St. Louis: B. Herder, 1914), p. 65.
33. *Ibid.*, pp. 66–67.
34. Rosser B. Melton, “The Theory of Value in Economics as a Rationalization of Social Status,” Ph.D. diss., University of Texas, Austin, 1940, p. 104.
35. C. L. Becker, *The Heavenly City of the Eighteenth Century Philosophers* (New Haven: Yale University Press, 1932).

36. L. H. Haney, *History of Economic Thought* (New York: Macmillan, 1927), p. 185.
37. Roll, *History*, p. 108.
38. Locke, for example, proposes a supply-demand theory for the measure of value.
39. Roll, *History*, p. 136.
40. Haney, *History*, p. 184.
41. Friedrich von Wieser, *Natural Value*, trans. by C. A. Malloch (London: Macmillan, 1893), p. xi.
42. *Ibid.*, p. 62.
43. Historians usually regard the Industrial Revolution as beginning at this time. Eric Roll makes this mistake (see his *History*, p. 140). But its beginnings lie much farther back, if indeed they can be said to be found at any point. The last quarter of the eighteenth century was a period of *intensification* in the evolution of industrial technique and organization.
44. Roll, *History*, p. 158.
45. Adam Smith, *Wealth of Nations* (New York: Modern Library, 1937), p. 28.
46. *Ibid.*, p. 13.
47. Roll, *History*, p. 343.
48. *Ibid.*, p. 376.
49. Paul T. Homan, *Contemporary Economic Thought* (New York: Harper, 1928), p. 107.
50. Melton, "Theory of Value," p. 335.
51. John Dewey, *Experience and Nature* (Chicago: Open Court, 1925), p. 394.
52. C. E. Ayres, "The Gospel of Technology," in *American Philosophy Today and Tomorrow*, edited by H. M. Kallen and Sidney Hook (New York: Lee Furman, 1935), p. 41.
53. Note Charles A. Beard (particularly his *A Century of Progress* [New York: Harper, 1932]), who distinguishes between the rational nature of technological progress and the "wild welter of unreasoned actions, irrelevant sentiments and emotional starts and fits which have so long characterized human life" (p. 32). In the field of art, see R. H. Wilenski (*The Modern Movement in Art* [London: Faber and Faber, 1935], p. 52); he points out that "the modern movement is opposed to the romantic idea of art" in that the value of a work of original art is derived from the initial experience "which it is the work's purpose to symbolize." Note also the favorable reception given semantics.