

# THE JOURNAL OF POLITICAL ECONOMY

VOLUME 30

---

*June 1922*

---

NUMBER 3

## HUMAN NATURE IN ECONOMIC THEORY

---

### I

One criticism brought against conscious economic theory is that it fails to take advised and realistic account of human nature. Economics is admitted to have a conception of human nature; but the root of the trouble seems to lie exactly in the fact that it is a conception—or, perhaps more accurately, a preconception. Its critics feel it to be inexact, unreal and without documentation or careful description; advanced, possibly, a step beyond the rigid classical *homo economicus* in the thinking of the marginists or corrected classicists of today, but still lacking the complex and irrational features of the human figure beginning to be bodied forth in the laboratories of the present generation of psychologists.

These psychologists<sup>1</sup> have already pretty well revolutionized the scientific definition of human nature. Instead of a firm and

<sup>1</sup> Too much stress ought not to be laid, for purposes of social science, on the differentiating titles of the new psychological groups; the spheres of activity overlap in many places and each group borrows something from the others. The term psychologist here is meant to include some scientists who are first of all physiologists—such as Cannon, Frank, Berman, Kempf and Loeb; some who are mainly anthropologists—such as Boaz, Lowie, and Goldenweiser; some who are principally biologists—such as Morgan and Bateson; some who are to be classed

clear-headed control of our actions, we seem to have only the controls emergent from the group of complicated psycho-physical mechanisms sometimes called the instincts; at once the power plants of action and the determiners of its direction.<sup>1</sup> The part of reason in this whole process is much less important than the old common-sense view supposed. It seems to be merely a selective part. We do not act in response to reason; we only, through reasoning, decide upon the repression of certain undesirable modes of action and thus clear the way for acceptable responses, which, we perceive, will yield us in the long run the satisfactions we are driven to seek—those of instinct gratifi-

---

among social psychologists with emphasis in one or another place—such as Wallas, Cooley, McDougall, Robinson, Huntington, Patten, Veblen, and Ogburn; some who are primarily philosophers—such as Dewey and Russell; all these besides the abnormal psychologists—such as Freud, Jung, Hitschmann, Hart, Southard, and Brill; the Behaviorists, strictly speaking—such as Watson and Thorndike; and other psychologists—such as Woodworth, Dunlap, Titchener, Yerkes, and Angell. This is, perhaps, an inexact grouping and yet all these contribute directly and consciously to our knowledge of human nature as it functions in modern society.

<sup>1</sup> There is a great deal to be said concerning these instincts and but little can be said here. William James (*Principles of Psychology*, Vol. II, chap. xxiv) gave the lead for the modern treatment of this branch of psychology. The best instinct list is probably to be found in Thorndike's *Original Nature of Man*. It is quoted in J. B. Watson's *Psychology from the Standpoint of a Behaviorist* (pp. 254 ff.) but not with approval. Watson feels too much has been made of these instinct categories; and he himself takes the position that they ought to be studied by the genetic method (chap. vii). He says that "No one has as yet succeeded in making even a helpful classification . . .," a statement that seems to the social scientist exaggerated, when he views the usefulness of, for instance, Thorndike's work; but which does throw a destructive light on the conclusions of such men as McDougall, who reduce the instincts to a very few major categories. Watson's own summary of his attitude gives the instincts a higher place than his preliminary statement would lead one to expect. Paraphrased these conclusions are: (1) Man is supplied with a large number of directly adaptive, life-conserving activities. (2) Man at birth and at varying periods thereafter is supplied with a series of protective attack and defense mechanisms. (3) There are also occupational tendencies. In the crude stage instinctive factors predominate here and prepare the way for habit. (4) Individuality seems to depend upon man's original tendencies, not upon the presence of the completed pattern type of instincts, since these do not exist in any large number. These original nature elements are factors which, when taken singly, are difficult to detect, but which taken together are most important. They are original part activities which have persisted in spite of instruction—such as artistic "touch" or "technic." (5) The principal rôle of all instinctive activity, neglecting the vegetative and procreative, is to initiate the process of learning.

cation—and the added satisfactions of social approval as well. (Here our “higher audience” is a determining factor.) These desirable responses are not originally referable to reason and reflection; responses are *caused* by the innate impulses, the instincts.

Man is equipped with the psychical and physical make-up of his first human ancestors; he is the sort of being who functions best in the exhilarations and the fatigues of the hunt, of primitive warfare, and in the precarious life of nomadism. He rose superbly to the crises of these existences. Strangely and suddenly he now finds himself transported into a different milieu, keeping, however, as he must, the equipment for the old life, largely useless now. He must function as best he can under the new strains and pressures; but the happy accordances are few and the disparities many. Fortunately his power of reflecting<sup>1</sup> has enabled him to persist under the new conditions by modifying his responses to stimuli. Life on the instinctive level is unthinkable in a culture having as its most important features urbanization, depersonalization of human contacts, diversity of tasks, restrictions on freedom and solitude, monotonies, fatigues, and incomplete expressions. And so reason plays its part; but the rôle is not the one assigned under the hedonist conception. Reflection is a modifier, an adjuster, not an originator of conduct. So pervasive is its influence, however, that our whole modern civilization takes on its color; and the higher levels of human achievement appear as a triumph of its expression.<sup>2</sup> And man comes to function in his new life through habit patterns which may be re-formed by reflection. In this way he attains at least a partial mastery of his conduct.

The descriptive powers of some newcomers in the theoretical field have been brought to bear on accepted doctrine with devastating consequences. The results might almost be called an exposé. One speaks of the “careless, a priori deductions which still dominate our orthodox texts.”<sup>3</sup> And another remarks even

<sup>1</sup> There seems to be an innate tendency to reflect and learn which is a distinguishing characteristic of our species.

<sup>2</sup> Santayana thinks of human progress as the “life of reason.”

<sup>3</sup> C. H. Parker, “Motives in Economic Life” in *The Casual Laborer*, p. 132.

more caustically: "The psychology of the bulk of Political Economy is still the fruit of limited personal observation and of a species of introspection."<sup>1</sup> And the same author goes on immediately to the unkindly suggestion that the contact of the theorist with the realities of economic life is infrequent and slight and that he lives but casually in the economic arena; "we may be pardoned for doubting, therefore," he says, "that his contemplation of himself will produce a representative and reliable psychology." Wesley C. Mitchell, writing as long ago as 1910, found it necessary to say: "Our most conspicuous economists, in America at least, cultivate the types of theory which admit nothing beyond a formal contact with psychology. . . . But such theorists will find the scientific significance of their work rated lower in proportion as the common-sense concept of human nature becomes modified by evolutionary ideas."<sup>2</sup>

Conceptualism is the particular bugbear of the social sciences, as, a century or two ago, it was the bugbear of the natural sciences. Unhappily the Spencers, the Mills, and the other social scientists have not been able to clear away the fogs of opinion, prejudice, and belief as Lamarck and Lyell and Darwin were able to sweep them from the field of natural science. There was a sharp struggle and a quick victory in the one case; but in the other the victory has been neither clear-cut nor permanent. Conceptualism still haunts the seminars of history, philosophy, political science, and sociology; but none of these suffers more severely than economics. Nor is this hardening of viewpoint limited to the theory which embodies the sensitivities of our modern acquisitivism and which would confine economic thinking within the bounds of the service of commercialism. It also extends to the field of pure theory. No classroom where modern generalizations are discussed has been free, these past few years, from the earnest questionings of students concerning the need for transforming into realities the psychologic notions of economics.

<sup>1</sup> Leo Wolman, "The Theory of Production," *American Economic Review*, Vol. XI, No. 1.

<sup>2</sup> Wesley C. Mitchell, "The Rationality of Economic Activity," *Journal of Political Economy*, XVIII, 113.

There has resulted a searching of souls among teachers and writers. So O. F. Boucke says: "A changed economic environment is bidding students to prepare for recantations and research." And "... our concept of human nature has materially changed. Its simplicity ... is being questioned and the difficulty of untangling its numerous factors reluctantly conceded."<sup>1</sup>

But it is much easier to vanquish harmful conceptualisms in the classroom than to clear them out of the texts. The one is an agreeable destructive enterprise; the other calls for the sturdy effort of rebuilding a partially wrecked edifice. And so far this labor can hardly be said to have begun; but at least the ground is being cleared and certain tentative suggestions for the new theory are appearing here and there in a persistent if somewhat fugitive manner.<sup>2</sup>

One defense against the rising tide of doubt threatening to submerge this particular foundation of economics is to contend for the old psychology as good science; but there are very few economists willing to do this; the old faculty categories and the hedonistic calculus have lost their savor. But another and more usual defense is to deny that economics necessarily has foundations in human nature at all. Even W. C. Mitchell seems almost to have approximated this attitude when he characterized modern psychology as a "dark, subjective realm" which a man without a lantern had better leave unexplored.<sup>3</sup>

There is a shallow attractiveness about this attitude for one who wishes to avoid the difficulty of studying and understanding another science as a prerequisite to his own; but it is only superficial after all and for this reason: economists, rebellious and struggling though they may be against their fate, are neverthe-

<sup>1</sup> *The Development of Economics*, pp. 326, 327.

<sup>2</sup> See, however, J. M. Clark, "Economics and Modern Psychology," *Jour. Pol. Econ.*, Vol. XXVI, Nos. 1 and 2. It is worth noting that none of the modern writers who have attacked the problems of psychology in economics have yet seen their way clear to the writing of a text which might supplant the older so-called "orthodox" texts of the marginal economists.

<sup>3</sup> W. C. Mitchell, "The Rôle of Money in Economic Theory," *Amer. Econ. Rev. Supp.*, Vol. VI. Commented on also in Fetter, "Price Economics vs. Welfare Economics," *Amer. Econ. Rev.*, X, No. 4, 724.

less thrust into the very heart of this "dark, subjective realm." They must find their way about as best they can; and in such circumstances a dim light is better than none. Of course, if economics is, by definition, to be confined to the investigation of market phenomena and generalizations from these facts alone, there is some justification for the attempt to escape the necessity for the exhaustive exploration of men's minds. If it makes no difference why a number of persons are willing to pay a price; and if we are concerned only with the fact that they do pay it; and if it makes no difference why other persons are willing to dispose of the goods they own and we are only concerned with the fact they do dispose of them, psychologic investigation is inessential. So would the position of the price economists be stated; and they quite rigidly would confine the science within these limits. This obvious reaction from the notoriously false hedonistic calculus represents a denial of the necessity for any psychology at all. It is, of course, open to the exquisitely apt interpretation of rationalization; but it is an escape much sought.<sup>1</sup>

It is necessary and yet difficult to place W. C. Mitchell in this matter. His great contributions to economic thought have

<sup>1</sup> Carl E. Parry in "A Revaluation of Traditional Economic Theory" (*Amer. Econ. Rev.*, Vol. XI, No. 1) says: "Recent developments in the field of social psychology have clarified our understanding of the relations between human nature and the social order. Social psychologists, for instance, have done much to increase our appreciation of the organic nature of society and to show that human nature, as we know it today, is the product of institutional development. . . . One such institution is the market, which is like all the others in being inspired to some degree by human nature, in exercising its own influence on human nature, and in penetrating and being penetrated by all the other institutions which make up the social order. My view of the function of the economist is determined by the results of this analysis. He is not primarily concerned with the interpretation of human nature as a whole, nor yet responsible for the development of any comprehensive science of human behavior. His primary business is to discover the truth about the market. Economics studies the market as political science studies the state." To the writer this statement and the conclusion seem dangerously close to a *non sequitur*; however, there are qualifying adjectives, "primary" and "comprehensive," which limit the force both of the statement and of its illogical consequences. It might be contrasted with the statement of J. S. Mill who speaks of psychology in his *Autobiography* (p. 204) as "that most important branch of speculation, on which all the moral and political sciences ultimately rest. . . ."

been in the field of price economics. And yet he has written a great deal concerning the relations of behavior to economics. He seems to feel, however, that although price is the legitimate sphere of the economist, he is perhaps justified in taking an interest in other fields not strictly his own. (It is, of course, our contention here that these other fields are strictly and legitimately phases of economics.) The following passage defines his position as closely as anything the writer has discovered:

Now if economic theory really has no concern with psychology, perhaps a survey of recent literature upon human nature is out of place. . . . For when economic theory has been purified so far that human nature has no place in it, economists become interested perforce in much that lies outside their theoretical field. Further, it is possible that the effort to keep the study of human nature out of economic theory may break down. The admitted deficiencies of hedonism may stimulate future economists, not to disavow all psychological analysis but to look for sound psychological analysis.<sup>1</sup>

In the market processes which fix prices and in which therefore the price economist is most interested, if the complex of supply forces is analyzed, supply is seen to have an important basis in human impulse which must be taken into account. And even in greater degree the analysis of demand depends upon premises in human nature for the explanation of its movements. Statistics of market phenomena must be regarded as evidences of how people have acted in the past and only in a loose sense are they helpful in forecasting the phenomena of the future. They do not paint an exact picture of what may be expected in the future. Examples might be multiplied to show how the most careful of forecasts have gone astray by failing to take completely into account the complex factors involved. It is a human weakness to regard the past as the complete pattern of the future. There are so many elements of risk and the case for accuracy in forecasting is so poor a one, it seems almost true to say that forecasts must take into account the possible reactions of all the individuals in the whole market; and if the market be a world-market—as it is for so many great staples of commerce—then the possible reactions of all the peoples of the world must enter. But this is not excluding human nature; it is including it, all of it.

<sup>1</sup> *Quarterly Journal of Economics*, XXIX (November, 1914), No. I, 2.

## II

Professor S. N. Patten, almost alone among American economists, has been effectively interested in the study of consumption. He made of it an important area of theory in its own right. Until he wrote it had been merely the study of one of the bases for calculating demand; it has been scarcely more in the theoretical systems of most economists since. Approached in this way consumption appears only as one of the smaller forces determining the all-important price equilibrium and, therefore, of very secondary importance to economics as a whole.<sup>1</sup> It is doubtful whether consumption can be successfully confined to so small a niche in theory as this, but even if this were its true place its study would be illuminating because it would still illustrate the difficulty of understanding price without a previous understanding of human nature. And since the alternative to a human economics seems to be a price economics<sup>2</sup> we may legitimately inquire whether price theory can stand independent of the study of human nature.

It was in 1889 that Professor Patten published his small volume, *The Consumption of Wealth*.<sup>3</sup> This inquiry undertook to formulate the "laws regulating the consumption of wealth." It was, in reality, a very early essay in social psychology from the viewpoint of an economist—as, indeed, any work in the theory of consumption must be. If there are laws of consumption they are most important in their relations to human conduct, the conduct of people faced with the necessity of making choices. Professor Patten recognized this:

In consumption we have a department which is of necessity much more deductive than either of the other departments of economics. It has its basis on facts in human nature and in society, which are of the most primary character, and hence are most easily hidden beneath a mass of obscuring facts which have their origin in a multitude of secondary causes.

<sup>1</sup> See, however, the various references to the importance of consumption in the works of the English economist, J. A. Hobson, especially in *The Evolution of Modern Capitalism*, chapter xvii, edition of 1906.

<sup>2</sup> See Professor Fetter's discussion in "Price Economics vs. Welfare Economics" in the *Amer. Econ. Rev.*, Vol. X, Nos. 3 and 4.

<sup>3</sup> "Publications of the University of Pennsylvania Political Economy and Public Law Series," No. 4.



It was clear, in 1889, that if one cared to discuss consumption at all there must be included a theory of human nature and that if one who was an economist were to formulate a theory of human nature it must be by a deductive process.<sup>1</sup>

Inductive reasoning cannot begin without facts, nor, indeed, without the preceding flash of insight which gives an intimation of significance. Neither the insight nor the facts were ready to hand and yet there was need to bring human nature into economics if there was to be built up any adequate explanation of wants and the means of their satisfaction. It may of course be said that human nature already had been brought into economics; and it had. But it was a conception of human nature which failed to explain much human conduct and so was useless. Professor Patten saw this, and throughout his long career as teacher and writer he has been insistently emphasizing the dependence of economics on psychology. Only he, of his generation of economists, worked out a theory of choices that can be considered seriously; no other economist perceived the importance of work in this field or, in fact, in any other which appeared to have as a prerequisite the study of human nature.<sup>2</sup>

In 1892 his *Theory of Dynamic Economics* was published<sup>3</sup> which was again partly an essay in social psychology. In this it was he remarked concerning Mill and Jevons—very much as Dr. Wolman remarks of present-day economists—“both assume that the laws of consumption depend upon purely subjective facts, and can be determined by introspection or by some simple induction from general experience. With such views it is not remarkable that Mill excluded consumption from economic dis-

<sup>1</sup> It ought to be remembered that this very important essay on consumption was published during the year preceding the publication of William James's *Principles of Psychology*, a work which appears to have furnished the basis in human nature for much of Professor Patten's later work in dynamic economics.

<sup>2</sup> See, however, “Economics and Modern Psychology,” by J. M. Clark (*Jour. Pol. Econ.* Vol. XXVI, Nos. 1 and 2). Also the same author has considered some dynamic aspects of demand in “Business Acceleration and the Law of Demand” (*Jour. Pol. Econ.*, Vol. XXV, No. 3). Professor Clark, however, belongs to the younger generation of American economists.

<sup>3</sup> “Publications of the University of Pennsylvania, Political Economy and Public Law Series,” No. 11.

cussion, or that Jevons based his theory of economics on a very crude theory of consumption."<sup>1</sup>

These remarks were confined to Mill and Jevons; but he might have added that his own fellow-economists in America had not advanced beyond Mill in this respect; nor, as a matter of fact, have they yet. Professor Patten's differences with his contemporaries turned a great deal on this matter of human nature. It was his contention that they were engaged in fruitless metaphysics, more or less; and they answered by saying he was not discussing economics most of the time. And so there was no issue. But it seems to some, at least, of the younger generation that Professor Patten was essentially more nearly right than his adversaries. Their economics is of little use to us now. Of course it is also true this early book of Professor Patten's is of little use now too; it contains no theory of choices we can call workable. He deduces certain laws of necessity, of variety, of harmony, of cost, of grouping, and of negative utility.<sup>2</sup> But they are based on his own conception of human nature again, which, of course, being more modern, is better than that of Mill or of Jevons, but which now has to be revised in the light of later psychologic facts. In this sense his contemporaries were correct. But after all he was on the right track and his early work has led directly up to his great but almost unknown work concerning the relations of psychology and culture.<sup>3</sup>

So far, it can be said, economics never has had an entirely adequate theory of choices. The lack seems to have become so notorious that a friendly philosopher has discovered an urge to come to the rescue.<sup>4</sup> Professor Stuart criticizes the marginal utility theory because it presupposes definite, precise, and

<sup>1</sup> P. 39.

<sup>2</sup> H. R. Seager adopted them in his *Principles of Economics* (chap. v.); but no other text includes them.

<sup>3</sup> "The Mechanism of Mind," *Annals of the American Academy of Political and Social Science*, LXXI, 202-15; "The Divided Self," *Monist*, XXX, 223-27; "The Genesis of Consciousness," *ibid.*, XXIX, 432-47; "Analysis of Mental Defects," *ibid.*, XXX, 107-25; "Cosmic Processes," *ibid.*, XXX, 406-42.

<sup>4</sup> "The Phases of the Economic Interest," by Henry Waldgrave Stuart in *Creative Intelligence* by John Dewey and others.

impossibly minute ends in view from the beginning of the valuation process in the mind of the purchaser.<sup>1</sup> He suggests that choices are made in three ways: first, because of old desires for old things; second, because of the better satisfaction of old desires by new things; and third, because of an ineradicable tendency to adventure with new things which is, essentially, an epigenetic process. He formulates a new term, "constructive comparison" to cover this third class of choices; it means a leap of the imagination, an undertaking of something vague but desirable precisely because of newness.

This is the most important way of choosing, he seems to feel, so far as social effects are concerned, and also the most important for the promoter and organizer of business to understand. If new things do not depend for their success in "catching on" (as the salesman would say) upon concealing the new under the label of the old or upon the imitation of old flavors, but on the contrary attract by their very uniqueness and novelty, it makes a difference to economic theory. Economists have not ordinarily supposed that people make important choices in that way, however well known the principle may be to the professional advertiser.

Interesting contribution as this is, there are still some elements it neglects. One has only to analyze the act of choice from the point of view of our new, if only partial, knowledge of behavior to see what elements have been omitted. Constructive comparison implies a putting of emphasis upon curiosity, the impulse to approach and manipulate; whereas it is doubtful whether any act of choice can be accurately attributed to this impulse alone any more than it can be attributed to the single factor of reflection. The one error is not so serious as the other but it nevertheless oversimplifies the act. Choice really depends upon the power of the instrument chosen to call out the responses in an individual. If individuals are made up of "sets" or tend-

<sup>1</sup> Cf. also E. H. Downey, "The Futility of Marginal Utility," *Jour. Pol. Econ.*, XVIII, 253; also J. M. Clark, "Economics and Modern Psychology," *ibid.*, XXVI, 12 ff.; and Thorstein Veblen, "The Limitations of Marginal Utility," *ibid.*, XVII, 620 ff.

encies to react in certain ways, a good or a service must touch off one of these sets or it will not be chosen. The intensity of demand will depend upon the force of the drive set up from the innate tendency toward the stimulating instrument. And this would be about all there would be to choice if life were lived on the instinctive level. But the factor of reflection enters and with it enter modifying forces.

There is first to be considered the elemental tendency, the instinct in action; then there is the crust of habits formed throughout a history of elimination of undesirable responses through trial and error; also there is the rational weighing of the utility of the instrument under consideration as a possible choice against the disutility involved in giving up whatever must be sacrificed to obtain it; and again there is the weighing of alternative choices. This last is in itself very complex. It suggests that the instincts are tendencies and sets in general directions only, and depend for their satisfaction upon no particular embodying instruments. One may, for example, satisfy the hunting tendencies with various alternative instruments, so widely different, perhaps, as a duck boat and a repeating shotgun or tennis equipment and a court to play on. Then too the weighing of alternatives, simply stated, confuses the weighing of utilities with the weighing of correlative disutilities, the one a positive and the other a negative process. Although one may think himself comparing the value of quarts of blackberries with the value of pounds of butter, he is in reality also comparing the disutilities involved in the acquiring of each. Of course this factor is of less importance in a strictly money economy; money equalizes the disutilities involved in acquiring different goods.

So that when we come to consider what the economist means when he speaks of a marginal buyer and find he means the least willing of a number of possible buyers, we are forced, if we care at all for exactness, to consider what creates a least or a less willing buyer. There is no other possible course to pursue if the object be to make an accurate forecast of demand. And, we see, the determination of an individual's willingness to buy lies

somewhere between the original driving force stimulated by the instrument and the power of his intelligence to modify this response in the direction of rationality, which is to say, in the direction of foreseen net satisfaction.

It may be said these elements are variable in different personalities and, therefore, there never can be any successful generalizing process carried through; but this is at most only a half-truth. If by a deductive process, we can construct some hypothesis of the usual norms in which consumption runs and set to work to substantiate this theorem by objective tests, just as the natural scientist would solve a similar problem, we may find that we can, in this way, discover paths through the wilderness as recognizable as are human traits themselves—for after all these are only very complex human traits. It might be said no two men would respond identically to a blow in the face; but the responses to such a provocation would be sufficiently alike to make it possible to guess after a few experiments what most men would do under these circumstances; and persistent observation and checking up would yield sufficient data for forecasting roughly the number who would strike back and the number who would run away, the number who would become excited and the number who would remain cool.

Similarly we might in time forecast the responses of housewives to the provocations involved in butter, eggs, and cheese displayed in the market place, or, even, the responses of business men to the stimulations of their environment. There would be elements of inaccuracy introduced by variations in income, because, of course, the size of income has a very important effect upon the elasticity of demand; and by the nature of the alternatives, because one mother will care more about the education of her child than will another and this will influence her demand for educational services and facilities and for bread and meat as well; and by the nature of the individual's reasoning qualities, because one will be more scrupulous in adjusting alternative foreseen utilities than will another. Then, too, general changes in the level of prices and the changes in the prices of specific commodities relative to the general price

level—which are continually shifting—will have an effect. But all of these are more or less susceptible of reduction to recognizable norms and of being weighed as to relative quantities of influence. It is an enormously intricate—and necessarily co-operative—task to estimate the demands of society but there is no other alternative than that of guesswork. And this is the important point to be made.

The hocus-pocus of marginal utility does not explain price. It reduces demand, as we see, to an unknown quantity, which, when analyzed, turns out to be a human-nature quantity. It is a real and inspiring task of the economist to assist in turning these unknowns into knowns; but in doing this he misconceives his function if he imagines himself avoiding psychology. In reality when the experimental economist sets to work to measure objectively the norms of human consumption, he, instead of escaping psychology, becomes a psychologist in the sense that he contributes to a knowledge of social behavior being variously built up.<sup>1</sup> He is, as a matter of fact, able to make a peculiarly important offering no other group of scientists is in a position to make because of his preoccupation with the conduct of people face to face with the dilemmas of choice in the market place, the field, the factory, and the home as they go about producing and trading and consuming the instruments of modern culture.

But there seems to be an incorrigible determination among the members of other scientific groups to think of psychology as inevitably subjective. It is a tragic misconception to think so of behaviorism at least, for this is precisely the weakness behaviorists object to and the root of their departure from the older forms of psychology. This science, like the older ones, is engaged in the universal occupation of pushing back the borderland of opacity that encircles the small patch of tentative certainty that is the

<sup>1</sup> This thought is also suggested by W. C. Mitchell in "Human Behavior and Economics: A Survey of Recent Literature" (*Quar. Jour. Econ.*, XXIX, No. 1, 3): "It may even be that economists will find themselves not only borrowing from but also contributing to psychology. For if that science is ever to give a competent account of human behavior it seems necessary that economists should do part of the work. Human nature is in large measure a social product and among the social activities that shape it the most fundamental is the particular set of activities with which economists deal."

science;<sup>1</sup> and that has been won with incredible pains and at a heavy cost.

Science in general expects ingratitude, lack of comprehension, even active hostility from the vested ideologies it undermines; it ought not to have to contest the way with other sciences as well. Such gratuitous opposition smacks of the jealousy of little minds; it has no place in the great co-operation of modern intellectual advancement. Nevertheless it is true that from the attitude of many economists one might gather that the study of the mind is a region of superstition or at best of pseudo-science, which men had best avoid in the interest of finding more fruitful and less metaphysical fields of endeavor elsewhere. This is naïve and is ungenerous to the eminent psychologists of the present generation and to some, like William James, of the past. It seems to be born of misreport which any scrutiny of the procedure of the behaviorists would correct.

It is perhaps idle to inquire how so grave a misapprehension may have arisen; but it at once occurs to the student of the affair that it may have come about through a confusion of behaviorism with Freudianism, which enjoys particular disrepute on account of vagaries of the amateur practitioners who presume too much on slight acquaintance with its principles. Or the confusion may have arisen in another fashion; the behaviorists are interested in knowing how the members of our species conduct themselves in the situations they are confronted with in a going world; and in order to obtain the necessary evidences they resort to a variety of more or less satisfactory experimental devices such as the study of the responses to stimuli of infants and those abnormal persons in whom normal conduct is significantly exaggerated even if sometimes distorted. It may be knowledge of these devices has spread about and an appearance of eccentricity obscured their real value. But this is the affair of the behaviorists. Devices quite as outrageous marked the early stages of other sciences and should have provided a warn-

<sup>1</sup> William Beebe expresses this idea very beautifully in *The Edge of the Jungle* (p. 274): "All our stories are of the middles of things—without beginning or end; we scientists are plunged suddenly upon a cosmos in the full uproar of eons of precedent, unable to look ahead, while to look backward we must look down."

ing against any a priori judgment of the value of the mechanics of investigation. So humble an instrument as an egg was used in an early demonstration of a scientific truth; but the nature of the illustrating device did not in any discoverable way impair the validity of the facts disclosed by its aid.

Certainly the devices of the behaviorists have been useful in the sense that we now have the facts which provide a significant nucleus for others and which will grow into a later, more complete, body of truth. Already they are sufficient to form the basis for certain generalizations valuable to the social sciences. It is only the study of human nature that can force the great closed door of economic theory. The battle cry of "down with subjectivism" is an irrelevancy; it merely confuses the issue; there is no subjectivity implied in the study of human conduct.

What has been characteristically overlooked in all this both by the psychologists and by the economists is that great areas of their sciences overlap. What the behaviorist sees in his laboratory the economist meets in the fields and the factories and is under an obligation to understand. And if behaviorism tends anywhere it must be toward the understanding of such conduct as the economist strives every day to measure more precisely so that he may predict with greater certainty, even if he is interested in nothing more than prediction.

### III

Carried into one of its most obvious implications, an investigation of the effects of industrial life on men would involve the whole of production. This again is a field of theory regrettably neglected by economists.<sup>1</sup> And yet there is no sphere more certainly the economist's, unless, indeed, we again face from

<sup>1</sup> This is not meant to imply that production is not studied. A glance at the catalogue of one of our schools of business will show separate departments richly provided with professors and students for every phase of production from corporation finance to real estate practice, from insurance to factory management and from accounting to commercial law. But there will be very little consideration of the meaning of all this activity for civilization. What goal the industrial system is and ought to be directed toward—these questions are distinctly subordinated. But a theory of production should include them as a formative element.



another angle the ultimatum of the price economists: "Economics belongs to the market place alone." And for them there still exists the embarrassing onus of the explanation of supply. Why is there a marginal producer? And is price influenced at all by the costs (not the expenses) of production? These are pressing questions and they must be answered unless the price economist is willing to introduce into the equilibration of demand and supply another unknown quantity and to confess his indifference to a mathematical absurdity.

The marginal producer is as much a psychological concept as the marginal consumer. When he is postulated, in effect it has been said: "Here is the least willing of a number of sellers." His willingness to part with what he owns may or may not have anything to do with the expenses of production. And yet mostly we assume the willingness of the seller to be altogether determined by the expense to which he has been put in the process of acquisition. In reality, when a seller parts with anything, there is raised, in discussing why he does so, the whole question of his equipment of impulses and the relation of the thing in question to them. And just as when the purchaser is approaching the act of buying, the question of the power of reflection enters here. The seller may be supposed to weigh alternatives and to put to work on the problem whatever equipment for reflection he possesses. Then too it is usually forgotten that the seller is often the preparer of things for the market and that he must enter upon a train of actions which will finally result in goods on a market a very long time before any such consummation takes place. When a seller gives up one thing and receives the wherewithal of the purchase of many other things in return, what part of this act is impulse and what part of it is dominated by a conscious weighing of alternatives? The answer is determined by the strength of the appeal of the things commanded by the money he will get, by the training he has had, by the habitual responses that have grown up in him by his liking for the acts involved in preparing for market what he sells—and the like. It is a complicated process, it is true; but its analysis is the only possible basis for the understanding of the concept of marginal

supply. And it is susceptible of the same reduction to distinguishable norms of behavior as is the conduct of consumers. Very clearly the only alternative is guesswork.

The camouflage phrase "marginal cost of production" hides a seething mass of underlying questions which can be answered only by the science which has for its subject-matter the behavior of men. It may be suggested too that for the economist who seriously intends the construction of a theory of production and who intends to treat production as something more dignified than as a source of supply for the market, a field of theory entitled to separate endeavor and understanding, the questions of human nature will be found to be the most difficult and the most immediate. Production is a human enterprise, carried on in part at least for the sake of the ultimate human satisfactions to be gained by using the goods and services produced. Some production is carried on for the sake of the work itself;<sup>1</sup> but in the producing efforts of our modern factories (and it is no matter for self-congratulation) very few of the resulting goods embody the joy of effort. More of them, if they revealed upon their surfaces their human costs, would be tinged by the hollow shadows of fatigue and colored by the unnatural stains of forced labor.

Truly the humanity of production is its most important feature. The most superficial treatment of the elements of the theory must face again and again such difficulties as the method of payment for work, the means of maintaining discipline, and the effects of the increasing specialization of process. And there are other questions having to do with the determination of the technique of production. Not only must the technical arrangements of factory, warehouse, and counting-room be adapted to the nature of the material to be shaped and finished; but also the place of work and the way of working somehow must be molded more successfully about the producers. More expressions and fewer frustrations are the demands of human nature that must be met in the working life. The penalty indus-

<sup>1</sup> Z. C. Dickinson in "The Relation of Recent Psychological Developments to Economic Theory" (*Quar. Jour. Econ.*, Vol. XXXIII, No. 3) speaks of this as "costless production." This is not a good descriptive term, however. Production of this sort is not only costless but represents a positive gain.

trial society pays for the neglect of this consideration is already serious. The most violent manifestation of industrial disturbance is, of course, the strike. But just as a very small part of the mass of a floating iceberg is visible, so only a small part of the general unfocused psychosis of industry shows itself in strike statistics. Industry is much more ill than appears in the annual count of strikers.<sup>1</sup> These are the problems on the successful resolution of which would depend the usefulness of a theory of production.

The need of consumption and production for an understanding of human nature is very real; so also is the need of "price economics," as it has been the endeavor to show here, both on the side of demand and on the side of supply. So it would be true to say that if economics as a science were to be confined to the analysis of market phenomena, denying the significance of these phenomena as evidences of the nature of human conduct, the generalizations arrived at must be confined to mechanistic explanations of how things happened after they had come to pass. They are valuable up to yesterday in explaining the method of the operation of forces; but because they deal, not with causes, but only with methods, no basis for prediction lies in them. Without admitting to the calculation the factors of human nature which the price theorist seeks to escape, no unassailable basis for forecasting can be attained.

Not even in this restricted field can the economist escape the implications of his psychologic premises; nor can he escape the implications of his measurements of human reactions to economic stimuli and his attempts to reduce them to generalized norms. When he performs these, for him common and experimental, acts, he is a psychologist by act if not by admission. He is contributing to the other science of social behavior.<sup>2</sup>

<sup>1</sup> See, for a further discussion of this, the author's "The Gipsy Strain" in the *Pacific Review*, September, 1921.

<sup>2</sup> J. M. Clark in "Economics and Modern Psychology" (*Jour. Pol. Econ.*, XXVI, 4) speaks of this: "The economist may attempt to ignore psychology, but it is a sheer impossibility for him to ignore human nature, for this science is a science of human behavior. Any conception of human nature that he may adopt is a matter of psychology, and any conception of human behavior that he may adopt involves psychological assumptions, whether these be explicit or no."

## IV

The motives of men as they go about their economic affairs are important for economists to understand whenever there arises a question of *why* it is human conduct follows a given line. It may be that all these *why* questions are irrelevant; but it would be less difficult to adhere to this belief if the whole school of classical economists and the present-day marginists, their successors, had not made such wholesale assumptions concerning these very motives.<sup>1</sup>

One great justification, for instance, for the distribution categories of rent, interest, profit, and wages lies in the fact that each furnishes an incentive to distinct individuals to do a distinct thing. If wage workers receive a share in distribution, for example, larger than that technically known as wages—say a part of the share known as profits—the value of the category wages is immensely reduced unless it can be shown that some social damage resulted from thus disregarding this category. These classifications grew up in the hedonist atmosphere. The processes of distribution are, to the marginal economist, merely processes of fixing the price to be paid for the services of the factor in production.<sup>2</sup> It is assumed that workers labor for wages alone, that landlords and capitalists permit the use of their instruments of production for rent or for interest and for no other reason, and that management in industry persists only because of the stimulus of profit.

But if there is any truth whatever in the behaviorist generalization that conduct is infinitely more complex than this would

<sup>1</sup> Z. C. Dickinson in "The Relations of Recent Psychological Developments to Economic Theory" (*Quar. Jour. Econ.*, Vol. XXXIII, No. 3) points out what these assumptions are. To paraphrase his discussion, they are: (1) Diminishing utility. (2) The predominance of self-interest as a motive to competition and toward making provision for wants. (3) Certain kinds of motives implied in the subjects of inheritance, monopoly profits, rents of natural agents, and differential gains of all kinds. For instance in dealing with the question of inheritance one of the chief problems is what part it plays in inducing the activity which leads to wealth accumulation. (4) A set of assumptions of social facts having chiefly a mental origin: legal and social institutions under which economic life is carried on. These are collective human habits based on unconscious custom or social will.

<sup>2</sup> Cf. Gide and Rist, *History of Economic Doctrines*, p. 228.

imply, the assumption underlying this theory of distributive forces is a mistaken one. Men in their economic lives have all the complex motives they are actuated by in any of their other spheres of activity. It is a false simplification to attempt the reduction of the number of human motives to rent, wages, interest, and profits.<sup>1</sup>

About this assumption there are several observations to be made. In the first place this is usually spoken of as "rationalism"; and we need to be on guard here, for it appears at once that instead of being rational it is only reflective. It only becomes rational when it is approached with the preconceptions of orthodoxy—in other words, with the notion that this sort of conduct is right. If one feels these to be mistaken motives, then the conduct inspired by them, assuming them for the

<sup>1</sup> The two extremes may be compared in Carver's insistence on self-interest as an all-important motive in economic life in his *Essays in Social Justice* and Parker's tentative statement of many motives which influence human conduct in his "Motives in Economic Life" in *The Casual Laborer*. Carver's attitude seems to be somewhat modified in "The Behavioristic Man" (*Quar. Jour. Econ.*, XXXIII, No. 1, 195); but he still believes the behavioristic man fits into and helps to complete, but does not modify the symmetrical scheme of classical economics as corrected by the marginists.

The broaching of this subject really requires a discussion which cannot be entered upon here, of the whole matter of the relations of Hobbes, Locke, Hume, Bentham, Ricardo, James Mill, and John Stuart Mill, of the working out of the countless early treatises on human nature which preceded that of James Mill, and of the formulation of the utilitarian position and its transfer to economic theory where it has rested safely with the orthodox ever since. An interesting introduction to this matter may be had through J. S. Mill's *Autobiography*, especially chapter iv. The best treatments are to be found in S. N. Patten's *Development of English Thought* and in O. F. Boucké's *The Development of Economics*, especially chapters iv and v.

It has always seemed to the writer at least that J. S. Mill was wiser than either his predecessors or his school of followers about human nature. He was certainly always sensible of the dependence of political economy on it; and more clearly sensible of the implications of this dependence than had been his father, James Mill, or any of those others from whom James Mill inherited his psychology. In his *Logic* (chapters iii, iv, and v of Book VI) he discusses a proposed science of "political ethology" or social human nature. The need of all the social sciences for this foundation is clearly stated here. He says (p. 626): "The character which is formed by any state of social circumstances is in itself the most interesting phenomenon which that state of society can possibly present. Secondly it is also a fact which enters largely into the production of all other phenomena." He goes

moment to be effective *as* motives, is not rational but irrational in the sense that it will not produce the greatest good. However, if these motives are taken as the expression of an ideal, a sort of classical absolute, they are seen at once to contribute enormously to that symmetry of outline and perfection of unity we associate with fully developed classicism in economics. They harmonize with all the other elements and become an indispensable part of the whole. If it can be assumed that these are the reasons why people conduct themselves as they do, then there is a sort of justice in the fact that these are the shares that come to them in the distributive process.<sup>1</sup>

Thus the corrected and fully developed classical or orthodox economics of today, sometimes called marginism<sup>2</sup> becomes not only an analysis or a hypothesis but a program, something so true it is worth fighting for. Because if it is broken down, even in part—by the wage workers encroaching on profits, to return

---

on to indicate the significance of this for political economy: "The most imperfect part of those branches of social inquiry which have been cultivated as separate sciences is the theory of the manner in which their conclusions are affected by ethological considerations. The omission is no defect in them as abstract or hypothetical sciences, but it vitiates them in their practical application as branches of a comprehensive social science. In political economy, for instance, empirical laws of human nature are tacitly assumed by English thinkers, which are calculated only for Great Britain and the United States. Among other things an intensity of competition is constantly supposed, which, as a general mercantile fact, exists in no country in the world except those two. An English political economist . . . seldom learned that it is impossible that men, in conducting the business of selling their goods over the counter, should care more about their ease or their vanity than about their pecuniary gain." Ashley remarks of this passage of the *Logic* in his introduction to the Ashley edition of Mill's *Political Economy* (p. xvii): "It is clear that it is only political economy that Mill has in his mind; and it is primarily to remedy its imperfections that Political Ethology is to be created."

But Mill, of course, could do nothing with his proposed ethology. For what he had in mind the world had to wait three-quarters of a century for the psychologists to lay a groundwork, and this, indeed, is not yet completed. And so Mill had to write his *Political Economy* without having the benefit of an underlying science of character. But it is at least clear that he always felt a lack which his followers did not always perceive, or, if they did perceive, neglected to develop and to find for it a place in their theory.

<sup>1</sup> Mill, however, specifically exempts himself from this charge (*Autobiography*, p. 231).

<sup>2</sup> O. F. Boucke, *The Development of Economics*, chapters vii and viii especially.

to our former figure—then something disastrous impends from a lack of proper incentive for management, which will cease to function, or at the least show a progressive tendency toward slacking. So that all distributive shares must be kept within their proper limits or else it must be found that progress is slowed up and the future of society endangered. The end of all this is that distribution comes to be thought of as controlled by something very like natural law.

Viewed from this angle it does not seem so remarkable that the classically trained should be so reluctant to admit this new-appearing specter of human nature. It calls into question immediately the whole justification for the distribution of income.

Then, too, there is another important phase of the matter to be considered. It has been assumed that men pursue their own gain and in doing so accomplish indirectly the good of society.<sup>1</sup> This is the justification for free competition, of laissez faire and of whole governmental programs during the nineteenth century based on these principles.

Behaviorism is very disturbing to laissez faire believers precisely because it calls in question what is meant by saying that man pursues his own gain and how it is that he accomplishes in this way the social good he is credited with. The doctrinal statement of this position is that man is paid for successful competition in money, that successful competition means producing commodities of good quality and bringing them to market at a cheap price; and that payment in money enables its possessor to command all the things which are his real payment. Concerning this neat synthesis, however, it appears doubtful whether competition always means producing well and cheaply when there is continual stress on the production of exchangeable

<sup>1</sup> Seligman states this idea with his usual clarity: "Under normal conditions competition is indeed the life of trade. The individual competitor may incidentally amass a fortune, but if he does so honestly (and dishonesty is not an attribute of wealth, but of individuals whether rich or poor), it can only be by conferring upon the community still greater benefits. He conquers who does best for society." (*Principles of Economics*, p. 141.) This is, of course, precisely the attitude of Adam Smith and of Mandeville before him.

values rather than utilities.<sup>1</sup> Then there is further question concerning the psychology implied in the assumption that an incentive can be real which depends on the accumulation of something in order to obtain something else. The modern psychologist would be inclined to feel that there must be an intermediate stage. This is to say that the shredded wheat and the shoes and the theater tickets which are the real rewards cannot be the actual stimuli for the accumulation of the dollars that enable the successful competitor to command consumption goods.

The search for the real stimulus reveals the acquisitive tendency in man, standing as large as life in the place where the economists have assumed stood the rational quality which so directed conduct as to assure all-round beneficent results. Acquisitivism is not a pretty motive; it is rather a specter. And yet it explains much which is not otherwise to be understood about economic conduct. Can it be that the phrase "chase for dollars," which Americans have so hotly resented on the lips of Old World critics is after all an accurately descriptive saying? It does appear so. We accumulate things, especially dollar symbols, just as the mentally unbalanced collect bits of paper and hide them in their chambers. We are induced to give them up only by a sharp wrench and because some of the other instincts have been tempted beyond resistance.

This conclusion is arrived at rather indirectly, through the descriptive work of the analytical economist rather than through a conscious modification of classicism. The industrial organization expert sees the growing specialization of our system and observes that increasing specialization is created through the rather haphazard arrival in the going system of a person or organization here or there—wherever it appears there is a profit to be made by doing a bit of a function. New functions are created; they remain a part of the system only if they pay. Indeed the only official economic criterion of their usefulness is whether they pay, quite regardless of any other consideration. Whether the new function enables the individuals who perform

<sup>1</sup> Cf. Henry Clay, *Economics for the General Reader*, pp. 383-89.



it to get the satisfactions necessary for their acquisitive tendencies is the basis for the social judgment of its worth.

Illustrations might be multiplied. This formal dependence of society upon acquisitivism has led to the characterization of ours as an "acquisitive society."<sup>1</sup> It is true that there is a quite merciless play upon this rather unattractive human trait in our economic system. But this does not excuse economists for hiding acquisitivism under a mask of productive virtue, nor for justifying what becomes a ruthless and unintelligent directive force in industry, leading nowhere in particular except to the enlargement of this acquisitivism and the final justification of it in our common morality.<sup>2</sup>

## V

Consideration of the fact that the directive emphasis in our industrial system is a worse than useless—even a positively pernicious—one leads directly to the whole problem of industrial ideals which we see economists are after all under obligation to understand, unless, indeed, they are prepared to turn this whole matter over to the philosophers and to content themselves with after-the-fact analyses of price. The burden of evidence seems to indicate they are not willing to do this. Not many economists do more than lip-service to this attitude.<sup>3</sup> Even those who stick

<sup>1</sup> R. H. Tawney, *The Acquisitive Society*.

<sup>2</sup> For instance we speak of people as "worth" so much, meaning dollars.

<sup>3</sup> This of course raises an old question not confined to economic theory, whether a science should be positive or normative. Positive in Keynes's phrase (*Scope and Method of Political Economy*, pp. 35-36) means tending "toward the establishment of uniformities"; normative means tending toward "the determination of ideals." The positive position has usually been the most attractive to economists in their discussions of scientific methodology. But quite uniformly they have, as a matter of fact, come around to the normative attitude soon or late, often without attempt at justification. So that they are set down as positivists, even when a whole life's work contradicts the written word. Mill is an example of this, one of his last works being his *Essay on the Subjection of Women*. It was J. M. Keynes the elder who declared emphatically that "if moral judgments are expressed they should be regarded as digressions" (*Scope and Method of Political Economy*, p. 53). But if this is true a great deal of economics is digression, a great deal of the work of J. M. Keynes, the younger son of the author of the *Scope and Method*, too, as witness, *The Economic Consequences of the Peace* and *A Revision of the Treaty*, as normative in purpose as they could well be.

closest to the price aspect of things wish to feel their position to be strengthened by saying they seek only a different and better method of conserving what is rather loosely called "welfare."<sup>1</sup>

And if there is a fairly general agreement among economists that welfare is after all the main criterion for the judging of systems and theories, we may briefly examine this "welfare" to see what, concretely, it means; and we are interested here of course in understanding its psychologic implications. The first thing to be said is that welfare has to do with satisfactions and that satisfaction is a psychologic term. The second point to be made is that welfare is not assured by high income. A certain level of income is a necessary prerequisite; but whether welfare eventuates is determined by the manner of its use. The assumption that the millenium would arrive immediately upon the heels of equitable distribution is a fallacy of older generations that still persists. It partly accounts for the economists' inexcusable neglect of the study of consumption. The third point to be made is that the idea of welfare includes the ideas of progress, prosperity, and intelligent direction—progress, because we must obviously move beyond the present stage in order to arrive at the welfare phase; prosperity, because it forms the minimum basis upon which to build, and intelligent direction because if the complex system remains unguided or guided only by the intermittent acquisivism of its individuals, happy adjustments will come but seldom and by the merest chance, and in all likelihood the future of such a régime would hold little but intolerable intensification of the present pressures of civilization.

A definition of welfare which excludes all consideration of human nature is thus quite unthinkable; and it follows, therefore, that the welfare economist must provide himself with accu-

<sup>1</sup> The exchanges between Professor Fetter and W. C. Mitchell concerning the respective merits of "price" and "welfare" economics are interesting. Mitchell begins by classifying Fetter among the price economists (*Amer. Econ. Rev. Supp.*, Vol. VI); Fetter rather indignantly denies this and caustically analyzes the basis for Mitchell's price position (*Amer. Econ. Rev.*, Vol. X, Nos. 3 and 4), indicating welfare as the only legitimate long-run interest of economists. To this Mitchell has replied informally that the price economist is as much interested in welfare as anyone, but believes it is better approached through the study of economics from the price angle.

rate psychologic premises. His study of the producer and the consumer cannot be confined to their transient appearances in the spot-light of the market place. Economists are imperatively required to be social scientists in reality; and this means that they are to say what it is the industrial system does to men and to define what it is men have a right to expect from industry.

Factory life, urban life, office and apartment house life, are charging a price for the efficiencies of production they make possible. Whether the price is too great, whether the satisfactions are worth the cost, who but the economist, re-equipped with the careful behaviorist analysis of human nature, can say? The anthropologists and the social psychologists are ready enough with comments on the unfitness of men for the conditions of life the economic system creates.<sup>1</sup> But the economists are not providing their share of the contribution to a problem which, in its major phase, is especially and specifically theirs. The directive intelligence of our time must grapple at once with the complexities of an industrial system that is straining men's natures to the breaking-point in its uncontrolled and juggernaut-like advance. Upon whose minds should this directive responsibility fall if not upon those specifically gifted and trained in the understanding of industrial philosophy and technique?

Theories of progress in terms of production, consumption, and distribution involve unavoidably the definition of ideals and through the ideals the direction of advance. They refuse to be confined to the unadorned and de-emphasized enumeration of events, which, as a method for social science at least, must be almost wholly fruitless. Mere description becomes a dusty catalogue of nondescript happenings. There is needed and there enters a stress here or there which betrays the emphasis of the whole theory; and this emphasis arises because of the greater significance of one phenomenon as compared with others. No power can create this meaning in events; the meaning is

<sup>1</sup> Graham Wallas, *Our Social Heritage*; C. H. Cooley, *Human Nature and the Social Order*; E. L. Thorndike, *The Original Nature of Man*; Franz Boas, *The Mind of Primitive Man*; Robert Lowie, *Primitive Society*; J. H. Robinson, *The Mind in the Making*; Clarence Day, Jr., *This Simian World*; Irwin Edman, *Human Traits and Their Social Significance*.

present because the occurrence marks an advance in one direction or another, probably an expected advance which assumes a preordered place in the substantiation of an hypothesis. When this fact of meaning is admitted—and on what other basis can the selection of observed phenomena be explained?—the directive problem, full-fledged, emerges and is seen to be a problem which one way or another will turn out to be ethical. It may as well be admitted that in analyzing and explaining events, the economist (like other scientists) necessarily begins with a feeling for his material which has come to him because of its ethical significance. With this admission made, it is possible to come out into the open and to ask at once what it is that we want from industry. There is born an assurance that the science will never again be a series of fumbings in a haze of subterfuge and denial, nor a hodge-podge of statistics without consistency or order. It is this spirit within the scientist that gives his work its richness and validity.

But—and here the psychologic considerations obtrude again—it is certainly true that we cannot know what it is that we want for humanity from industry without knowing what the nature of humanity is that is to be affected. To attempt to direct the economic system toward human welfare without understanding human nature would be quite as futile as the attempt to cure disease without a preliminary study of physiology, or to do—what no skilled worker will defend—work in any material without an intimate understanding of its composition, its workability, and its amenability to different modes of manipulation. The consequences of programs for the redirection of industry are certain to be profoundly serious for humanity. The economists' obligations to understand the substance and workability of the endowments and capacities of men is correspondingly heavy.

When they are asked to define the ideals for industry, economists can accomplish the task only with the use of terminology borrowed from psychology; for the instruments men require industry to supply are the sort to satisfy natural and human even if intransigent longings. There is beyond this the need

that in the arrangements the technicians make to create these instruments, they shall not too seriously violate the rules of mental hygiene nor compromise the useful surge of the life-renewing creative impulses. The economist cannot be content with the easy rule that any desired instrument or satisfaction or mode of conduct is good. He is forced to say that the production or consumption of this or that is wholly or partly bad and ought to be changed. He has it at his disposal to define the ideal direction of all the intricate and powerful forces of social pressure and the provision of alternatives. He dare not shrink from advising wise use of them. To do so is to invite the use of them blindly. And when he is forced into the directive dilemma, he must analyze his problem and present his solution in psychologic terms. An answer to the ethical problem in any other terms would be irrelevant, obscure, and dangerous.

REXFORD G. TUGWELL

COLUMBIA UNIVERSITY