

THE JOURNAL OF POLITICAL ECONOMY

DECEMBER—1908

DAVENPORT'S *VALUE AND DISTRIBUTION*¹

During the last two or three decades, economic theory has been enriched by a continuous stream of writings, contributed from many sources. The Austrian school, originated by Menger, and developed by Wieser and Böhm-Bawerk; the mathematical school, originated independently by Walras, in Switzerland, and Jevons, in England, and supported by Marshall, Edgeworth, Pareto, and numerous other writers, have done much to clear up the elusive mysteries surrounding the subject of value. These movements have given a special stimulus to economic literature in America, and have combined with the independent thought typified by the writings of Patten, Clark, Fetter, Carver, and others.

Although the books and pamphlets which constitute this enormous mass of literature are related to each other, they have not formed any coherent or progressive whole. The writers have been related as mutual critics rather than as co-workers. So far as they have been of aid to each other, it has been through stimulus and controversy. Those who, like the present writer, believe in the fundamental value of economic theory, have derived a certain satisfaction from the great volume and vigor of these contributions from many lands, but most of us must in candor confess to disappointment that so few definitive results have been

¹ *Value and Distribution: A Critical and Constructive Study.* By Herbert J. Davenport. Chicago: University of Chicago Press, 1908. Pp. ix+582.

reached. Some of what has been written has little or no value. Some belongs to the category of "brilliant but unsound," which brings discredit to economic theory; while among the writings which have great value many have been in danger of being lost among the rubbish; just as two generations ago the valuable contributions of Cournot and John Rae were buried, all but completely. Today, as twenty years ago, the best writers are still striving to lay foundation stones, being as yet unwilling to trust the foundations previously laid by others.

If economic theory is to accomplish what its votaries hope for it, the time must come when the edifice can be built higher and be secure enough to enable practical men to put their faith in it. What Professor Davenport has done may be considered a first step in this direction. He has attempted to fit together the work which has been performed by so many workmen from so many different points of view. In his attempt we believe that, for the most part, Professor Davenport has succeeded admirably. It would be difficult to conceive that any one could have succeeded better. The task which Professor Davenport undertook requires precisely the qualities which he brought to it—sympathetic criticism, clear insight, comprehensive knowledge, and an independent point of view. In these respects his work resembles that of Cannan, which, in a somewhat similar way, covered the classical period of English economic theory. The work also resembles that of Marshall, who attempted to incorporate in his system all important contributions of previous and contemporary literature. Davenport's work is more constructive than Cannan's, and more historical than Marshall's. It is difficult, in fact, to say whether it is chiefly critical or chiefly constructive. If it be regarded as criticism, it is certainly true that the value of this criticism largely consists in the fact that it is all attached to a central thread of constructive theory. Professor Davenport himself has stated that his book was written chiefly for this central thread, even though that thread takes up but a small fraction of the entire bulk. But we are inclined to believe that most readers will chiefly value Professor Davenport's work as one of criticism. He has succeeded largely in bringing order out of

chaos from scores of other writers. As is well stated in the preface:

For several decades, and indeed in the main since the time of Adam Smith, economic theory has been in possession of doctrines enough for a reasonably complete, consistent, and logical system of thought, if only these doctrines had been, with a wise eclecticism, properly combined and articulated.

The conclusions at which Professor Davenport has arrived as a final result of his comparative study of previous writers, after being put through the crucible of his own independent thinking, suggest in numerous places the conclusions which have already been arrived at by many mathematical economists, such as Cournot, Jevons, Walras, Pareto, Edgeworth, and Marshall. Yet Professor Davenport evidently owes little or nothing to the writers above mentioned, Walras, Jevons, and Marshall being the only ones of them even mentioned, and the first only in a footnote. We count it as one of the few defects in Davenport's book that he has not included more from these mathematical writers in his "critique." Not only have they largely anticipated him in the work of co-ordination of economic doctrines, but, in the opinion of the present writer, have in some directions proceeded further than Professor Davenport. Among other subjects to which this observation applies are those of marginal utility and the theory of marginal contributions of co-operating productive factors. Professor Davenport seems to make little use of the "principle of continuity" to the law of diminishing utility or the other laws of diminishing functions in economic science. It is quite true, as the author points out, that the last, or "marginal" \$500 invested in a piano, or in a furnace, or in an addition to one's kitchen, may not have in each case identically the same utility.² In fact, in the case of large units, apparent discrepancies may be enormous. For the piano costing \$500, the purchaser may be willing to pay \$5,000, or \$550—anything, in fact, *more* than \$500. But an additional piano would be worth *less* to him than \$500. In the case of large indivisible units like the piano, the true statement of the relation of marginal purchase to price is not that the last unit bought should have a utility equal to the

² P. 287.

price. The last unit *bought* is no more closely related to price than the next unit in succession, the first unit *unbought*. The last unit bought is always worth to the buyer *more*, and the first unit unbought always *less* than the price. The price falls between two limits for each purchaser—what he is willing to pay for the last unit bought and what he is willing to pay for the first unit unbought. When the units are small, as in the case of loaves of bread, these upper and lower limits approach each other, and become practically equal. Therefore as the divisibility of units is increased and we approach continuity, as in the case of such articles as sugar, flour, etc., the need of distinguishing the two limits becomes less. Hence it comes about that “marginal utility” is often carelessly spoken of as applying to the last unit purchased, and the rôle of the first unit unpurchased is ignored. The whole subject is worked out fully by most mathematical economists, especially by Auspitz and Lieben.³

Similar criticism applies to the theory of co-operating factors. It is true, as Professor Davenport says,⁴ that it is difficult to isolate the productive factors and to allocate their contributions to the joint product. It is difficult even to attribute a small increase of product to an increase in any one of the various factors. As the author says,⁵ “Is not this increase due rather to the mere ‘togetherness’ of all of the co-operating facts?” It is quite true that we can get absurd results if we attempt to ascertain the share in the product attributable to one of several factors, by the expedient of withdrawing that one factor and observing the resulting reduction in the product.⁶ If we take away one of two scissors, we shall accomplish no cutting; consequently, the entire product of the two would by this method be attributed to the one. If we take away the other scissor, we find that this one in turn will be credited with all the cuttings. Such an argument has been used both by the advocates of capitalism and by the advocates of

³ See their *Untersuchungen über die Theorie des Preises*. Leipzig. 1889, pp. 130–6. See also “Mathematical Investigations in the Theory of Value and Prices,” by the present writer, *Transactions of the Connecticut Academy*, 1892, p. 13, and *The Nature of Capital and Income* (The Macmillan Co., 1906), p. 344.

⁴ P. 472.

⁵ P. 472.

⁶ P. 471.

socialism. The one party maintains that capital "supports" labor, since capital is necessary to give labor employment, and the other asserts that the laborer "supports" the capitalist, since his capital would be useless unless operated by labor.

But a true method, as in the discussion of marginal utility, will proceed differently. It will proceed to the "continuous" case, where the increments of the productive factors are indefinitely small, and subtract one at a time, and these contradictions will then disappear.⁷ This subject also has been covered by mathematical treatment.⁸

What Professor Davenport says⁹ of the nature of marginal utility is much to the point, though it is an example of what has been well expressed before by mathematical economists. In the first place, he points out that psychologic utility as a useful economic concept is quite different from utility as conceived by the Bentham utilitarians who launched the term. Most mathematical economists would, as would professor Davenport,¹⁰ prefer to substitute some other term, such as ophelimity, suggested by Pareto, or desirability, as suggested by Marshall, although, as Professor Davenport has said, "desiredness" would be a better designation of what is intended. To be of effective service in economic theory, "utility" must mean simply *intensity of desire*. This leaves unspecified whether this desire is the result of deliberate calculation or of habit, or of instinct, etc., etc.

Professor Davenport also well insists that utility represents an individual and not, as is often supposed, a social category.¹¹ There is no such thing as "effective social utility," but simply individual desires existing in separate individual minds. Consequently when we speak of the relation of utility to demand and supply, we must have reference to the minds which actually decide production and consumption.

Now it is only as motives for production are weighed and

⁷ Or rather they will disappear except in the limiting case where it is impossible to alter, even infinitesimally, one factor without altering all.

⁸ See the writer's "Mathematical Investigations in the Theory of Value and Prices," and Pareto's *Cours d'économie politique* (Lausanne), Appendix (1897).

⁹ P. 324.

¹⁰ P. 311.

¹¹ P. 185.

decided upon *in the mind of the entrepreneur* that they become effective. This is one justification for the contention of Professor Davenport that the decisions of the entrepreneurs should be given the central rôle. The author well says:

Margins are ultimately personal, and not instrument margins. Instruments are marginal only with reference to the entrepreneur and relatively to him and to his situation. Marginality is a psychological attitude with reference to productive activity or to the productive employment of instruments.¹²

When he says that all margins are personal, he does not mean—as some of his reviewers have seemed to imagine—to deny that they depend upon a variation in the quantity of external instruments, but simply that they involve a psychological comparison, and that this comparison must be made in the mind of a single person.

Professor Davenport's criticism of some of the abuses of the theory of marginal utility is especially pertinent.¹³ He shows that it is misleading to say that the marginal unit *determines* value. He would add that it is even misleading to speak of "the" marginal unit at all, for the "law of indifference" of Jevons makes of every unit in an assumed supply a marginal unit with reference to that supply. The last unit in time or space is not the marginal unit, any more than the drop of water at the end of a lake is "the" marginal drop.

This simile suggests a beautiful and close analogy between the economic doctrine of marginal utility and the physical doctrine of "potential." If we consider a water reservoir which is filled to a certain height, each and every drop of water will have the same "potential" or capacity for mechanical work. This potential is proportioned to the height of the *surface* of the reservoir, being the product of that height by the weight of the water in that drop. Not only do the drops of water on the surface have this potential, but every other drop has it as well, even that at the bottom of the reservoir. This follows from the fact that the mechanical work required to move a drop from any position in the reservoir to the top of the reservoir is zero. Yet strange as it

¹² P. 575.

¹³ Pp. 304, 306.

seems, the total energy of the reservoir could not be measured as the product of the entire weight of its contents by the height of its surface; for as soon as the reservoir begins to discharge the surface falls, and therefore the potential of the water which is left will be altered. In the same way in any economic supply, by the law of indifference, every unit of that supply may be regarded as marginal—*given that supply*. Yet the "total utility" of the whole is not the product of its marginal utility by the supply. As the supply varies, its marginal utility varies also.

Professor Davenport's work of "articulation" has not been confined to fitting together the work of economists merely. He has also attempted to fit, and we believe succeeded to a large extent, in fitting these theories into the ideas and methods of the practical business man. In fact, highly theoretical as is Davenport's book, he has throughout an eye to the practical side. It is for this reason that he makes so much of the point of view of the entrepreneur, and it is for the same reason that he constantly endeavors to show the relation between economic theory and its monetary expression. As he very properly insists, the effort of economists to penetrate beneath the money language has led them into a false belief, i. e., that the money expression is merely superficial. On the contrary, money and money terms are vital, not only from the practical, but from the theoretical point of view. Here again Davenport is partly anticipated by mathematical economists. Pareto has long insisted that all the most important problems in economics, both practical and theoretical, are connected with the subject of the value of money.

Professor Davenport points out that the money point of view is especially important in connection with the rate of interest.¹⁴ Professor Clark and others¹⁵ have shown that the rate of interest, as it appears in actual contracts, expresses the relative preference for the present purchasing power of a dollar over its future purchasing power. A foreseen change in the purchasing power of money will of itself produce a compensatory change in the

¹⁴ Pp. 202, 217-20.

¹⁵ For historical references, see the writer's *The Rate of Interest* (New York, The Macmillan Co., 1907), pp. 356, 357.

rate of interest. Consequently the rate of interest in terms of money and in terms of goods of various kinds need not be identical. This, however, does not by any means contradict, but on the contrary confirms, Minister Böhm-Bawerk's statement that the rate of interest is the premium on present over future goods *of the same kind*.¹⁶ The rate of interest would have no meaning unless we compared present wheat with future wheat, or present coal with future coal, or present money with future money. The comparison is always in money and through this agency we compare present goods of one kind with future goods of another kind provided we have given their respective prices. The statement which Professor Davenport makes so often in his book that the conditions of demand and supply are dependent on the general price level is an important one, and often overlooked. As Pareto would say, the price level in conjunction with the individual income is necessary to determine the marginal utility of money, and the marginal utility of money lies at the base of all effective demand and supply.

The central theme of Professor Davenport's work is the study of value. So far as what is conventionally called "distribution" is concerned, it is regarded by the author, and we believe properly, as merely an application of the theory of value.¹⁷ "Distribution," we believe, has come to be a misnomer. Originally it was intended to signify distribution as between different classes of industrial society. The conventional "distribution" was first treated by the classical economists. It was at that time quite true that the society in England with which these economists were familiar was roughly stratified into landlords, "capitalists" or investors, entrepreneurs or "undertakers" and laborers. But not only is it true that the lines of this stratification have become today largely effaced, but it never was true that any "laws of distribution" as to rent, interest, profits and wages, could or did constitute any real analysis of the parts of the social income which different individuals or different classes received. The same individual may belong to two or more of these categories; the extent to which he belongs to the several categories being

¹⁶ P. 206.

¹⁷ P. 276.

dependent chiefly on whether or not he has inherited property, and, if so, of what kind.

Only recently, however, have economists come to realize the futility of such studies in "distribution" as more than remotely contributing to the real problem of distribution of income; the problem which Pareto, for instance, has studied statistically. Edwin Cannan¹⁸ was one of the earliest writers who recognized that the term "distribution" had become a misnomer. Professor Davenport has reached substantially the same conclusion. The work of Professor Fetter and others in regard to the relation between interest and rent could have, in fact, no other outcome. The sooner economists recognize this, the more rapidly will economic science make progress in the real and important problem of distribution—the problem of the rich and the poor. Not only does the traditional conception of distribution depend on a fanciful classification of society, but it also rests on a false notion of the importance of classifying the factors of production—land, capital, labor. Land is undoubtedly, in many respects, a peculiar form of capital. But interest and rent apply interchangeably to land and to other instruments. Moreover, they are co-extensive, rent being simply the money hire per acre or per individual machine, and interest being the ratio of that hire to the value of the acre or the machine. We may remark, in passing, that those who would still insist on making a hard-and-fast distinction between "land" and "products" will do well to remember that originally much if not most land required an investment of labor before it had value, and consequently that the present value relations of land will be just the same whether historically it was a gift of nature or reclaimed from the wilderness at high cost. The dike land in Holland has no greater, and no less value today than if the dikes were barriers of nature instead of creations of man.

Similarly, profits and wages are merely alternative methods of remuneration of labor. We see this clearly where co-operation is adopted, and the employer of laborers is replaced by a

¹⁸ See *Quarterly Journal of Economics*, 1905; also the writer's, *The Rate of Interest*, pp. 229–35.

salaries foreman, hired by the laborers themselves. This system inverts the ordinary arrangement, making the common laborer the recipient of profits and the manager the recipient of wages. Davenport uses the term "profit"¹⁹ as denoting "the residual compensation falling to independent business activity after such apportionment as is possible has been made for rent, interest, wages, and other outlay."

He adds the weight of his judgment in favor of the modern concept of capital as existing wealth.

The insight which Davenport displays into the nature of capital and saving is well expressed in many places.²⁰ For instance:

Saving then means postponed service. Always and everywhere postponed service is the heart of the capital concept; privately postponed service is private capital; socially postponed service is social capital.

Again, in speaking of the essential nature of credit, Professor Davenport seems to us to express the truth admirably. Referring to bank loans he says:

Despite all the machinery and the terminology of the case to the contrary, all that the bank really does is to underwrite the credit of the customer; it lends its own credit truly, but only in the sense of adding a guarantee to the customer's undertaking to pay. It therefore follows that the naïve business view of "bank capital" obtained through borrowing misconceives the facts; the process is merely writing over into acceptable producing power the business man's own note.²¹

In all that Professor Davenport has written concerning land, capital, and labor, one primary object is to rid economic science of the "Tri-partite" classification of productive factors into land labor and capital.²² We believe that, even should we retain this classification for the mere purpose of classification, it could never serve the more important purpose of economic analysis. True science is to be measured by analysis, not classification.²³

Professor Davenport devotes the larger part of his discussion

¹⁹ P. 98.

²¹ Footnote, p. 168.

²⁰ Footnote, p. 158.

²² P. 152.

²³ See the writers "Economics as a Science," *Science*, August 31, 1906, and *The Nature of Capital and Income* (New York, The Macmillan Company, 1906), p. 7.

of value to the subject of *costs*. He compiles and compares the various concepts of costs, and attempts to show their relations and comparative validity. Much is made by him of "opportunity cost," by which is meant the sacrifice of an alternative. The man who accepts the position of foreman in a factory relinquishes the opportunity to work as a farmer, or the opportunity to enjoy leisure, or to be an employee. The investor who puts his savings into bonds or stocks sacrifices the opportunity to spend them in enjoyable income. The sacrifice called "abstinence" or "waiting" is therefore found to be one variety of opportunity cost.

If Professor Davenport's analysis be pushed far enough, opportunity cost may be made to include every variety of cost. Cost is always comparative. In their broadest sense, cost and return from cost are in their most general applications *differences* between two alternatives compared. Each individual has open to him countless choices or opportunities. He compares one with another as to their advantages or disadvantages. For instance, the prospective investor has the choice between spending or investing. For him the choice at bottom is between two alternative income streams, namely, a large, enjoyed income in the immediate future, or an income which though smaller in the immediate future is considerably larger in the more remote future. As the individual considers the merits of the proposed investment as compared with the opportunity to spend, he counts the comparative diminution of present income as a disadvantage of the investment, and the resultant increase in future income as an advantage. The disadvantage is the cost, and the advantage is the return of the investment compared with its alternative. Both the cost and the return are thus mere money values of the differences between two alternatives. Examination will show that all cost is fundamentally of this nature.²⁴

Professor Davenport gives special emphasis, consistently with the general treatment in his book, to the cost of the entrepreneur. This cost is money cost, consisting in money outlays. The fact that this cost is not of a fundamental or basic sort is fully recognized by Professor Davenport. Back of the entrepreneur's money

²⁴ See the writer's *The Rate of Interest*, pp. 8, 9.

payments lie the sacrifices of the laborer and the use of capital. These basic costs, however, are, we believe, kept too much in the background by Professor Davenport.

A full view of the subject of cost will throw much light on the relation between cost and value. Professor Davenport has recognized clearly the fact that the true relation between cost and value is the inverse of that ordinarily assumed. Cost is not the cause of value, at least not in the simple manner maintained by the classical economists. As the author says in his summary:

The emergence of value is not dependent upon cost of production influences as a prerequisite, but only upon there being a supply limited relatively to human desires. But, so far as the cost-of-production investigation bears to explain the relative volumes of supply of different commodities, it bears to explain the values of these commodities.²⁵

This doctrine is the same as that so well advocated by Jevons. The old doctrine that rent does not enter into cost of production is true in a sense different from and more fundamental than the sense in which the doctrine was originally maintained. So far as the question of causation is concerned, there can be no doubt that Professor Davenport stated the doctrine correctly and clearly. But a further fact needs to be emphasized, and this Professor Davenport seems largely, if not wholly, to have overlooked. It concerns what Böhm-Bawerk calls "surplus value."

A certain mystery has always surrounded "surplus value." Originally it was regarded as being a very exceptional phenomenon. It puzzled Ricardo who, as Davenport says, regretfully admits, but none the less stoutly argues, that the exceptions must be recognized to the general doctrine of proportionality between exchange value and labor cost. But [as Ricardo writes to MacCullough] "I cannot get over the difficulty of the wine which is kept in the cellar for three or four years, or that of the ash tree which perhaps originally had not two shillings expended upon it in the way of labor, and yet comes to be worth one hundred pounds."

It often happens in the history of sciences that what seems a minor but unexplained problem plays ultimately the dominant rôle. "The stone which the builders rejected, the same is become the head of the corner." Marx came to see, through the distorted

²⁵ Pp. 571, 572.

lens of socialistic theory, that "surplus value" is not a rare and exceptional phenomenon, but always exists where capital takes part in production. Böhm-Bawerk, with clearer insight, showed the necessity for such a surplus. *Interest*—omnipresent in all economic relations involving time—is in essence such a surplus value. The point which we wish here to emphasize is that in the last analysis this surplus value is not cost. It is true that when interest is paid from one man to another he who parts with it counts the payment as cost or outgo, but he who receives it regards it with equal propriety as income. Ultimately it is neither, but merely accrued surplus value, exactly similar to the surplus value of the wine or the ash tree which puzzled Ricardo. It is useless to attempt by any casuistry to force this surplus under the category of costs, as has been so often attempted in the abstinence theory of interest. If interest is 5 per cent., a tree planted at a labor cost of \$1.00, in order to repay this investment, ought in twenty-five years to be worth three dollars; at an intermediate period, fourteen years from planting, it should be worth two dollars. The difference between the original cost, \$1.00, and the value at the end of fourteen or twenty-five years is a real gain and cannot be in any sense figured as a loss or cost.²⁶

Our calculations will be the same if we fix our attention on rent instead of interest, for we are then treating the same element, differently measured. In reference to the problem whether the rent of land determines the price of its product or vice versa, the author rightly maintains the latter, and he points out that the cause which raises both rent and price is the scarcity of land. He continues, "in ultimate analysis, it still stands as true that it is not the rent that makes the prices high, but the scarcity of land." Now if we follow this analysis, we cannot avoid the conclusion that rent is not cost of production. It is not a negative, but a positive item. When it is paid by tenant to landlord, it is cost to the former, but income to the latter. A full view of the book-keeping involved in such a case will show that we have to deal not simply with a pair of equal and positive items which may be regarded mutually canceling, but with *three* equal items, two of

²⁶ See the writer's *The Rate of Interest*, p. 49.

which are positive and one negative. However we combine or attempt to cancel them, one of the three will always survive. The owner of the classical mineral spring who receives from it a valuable gift of nature worth, let us say, \$1,000 per annum, is the possessor of economic land rent. If no tenant is involved, he clearly has here a positive income of \$1,000 per annum received without effort, sacrifice, or cost of any kind. If he rents the spring to a tenant, the result is not changed. In that case the tenant may pay him \$1,000 in money. The tenant will reckon this as cost, but the landlord who receives it will reckon it as income. If now we take the social point of view and combine these two, they cancel each other, but there is still left \$1,000 worth of water from the spring for the tenant.

The case will not be altered if we cancel this water value for the tenant against the rent which he has to pay. The surviving item will then be the landlord's income of \$1,000. The figures apparently conform to the doctrine that the value of the product shall equal the cost of production; for the \$1,000 worth of water which he obtains costs him \$1,000 in rent outlay. But this reckoning is confined to the tenant. For the community as a whole we have still to reckon with the fact that the landlord receives \$1,000. This may be regarded as the net social income uncompensated by any cost of production.

It is clear, therefore, that there is a surplus surviving here, and that we cannot summon into existence any cost to cancel it. Whatever effort we make to accomplish this will only result in surplus value cropping out in some other guise.

There are numerous methods of approaching the problems of cost and value, but if the analysis is pushed far enough, they all end in the emergence of surplus value. This is the net income of society and of individuals, whether our study be from what our author calls the collective or the competitive point of view. We therefore believe that Professor Davenport's conclusions would have been made stronger, clearer, and more complete had he pursued his analysis of cost (and return on cost) to the summation of income.²⁷ He seems to content himself with saying

²⁷ See the writer's *The Nature of Capital and Income*, chap. ix.

that the cost to the entrepreneur²⁸ is, in ultimate analysis, not cost but only an intermediate term. If we make a summation of income, we shall find that all intermediate terms are self-canceling. Whatever our method of bookkeeping, these intermediate terms will inevitably appear in pairs. Wherever there is a debit, there will be a credit. This is the commercial point of view, expressed in ordinary double-entry bookkeeping.

What, then, is the final and necessary result of such a social summation? What are the uncanceled costs of production? Will these include rent, interest, wages, and profit? The answer in each case is a categorical negative. All these—rent, interest, wages, and profits—may and do appear as outlay costs to the entrepreneur, but always beside them appear equal items on the accounts of other people; and in the background in each case, a third item, the value of products in the form of enjoyable services or income, for which the payments of rent, wages, interest, and profits are recompensed. We shall find here nothing but surplus value.

The sole item in cost of production which will not unravel in this manner is labor. Let us not be befogged by the "competitive" view which may confuse the outlay costs of commerce with the ultimate costs of production. All outlay costs are merely intermediate. A complete view washes them off the slate and leaves only the toil of human beings on the one side and the reward of that toil in enjoyable income on the other.²⁹ It is a fundamental economic truth that we earn our bread by the sweat of our brows. Sweat of our brows is real cost of production. Professor Davenport goes much too far, we believe, when he states that the concept of "real costs" should be abolished.³⁰ He points out clearly that the real costs in "grief and groan" to the laborer are individual matters, and that the sum total of the outlay cost in wages for the entrepreneur is in no sense equal to the sum total of "grief and groan" of his laborers. For this

²⁸ P. 273.

²⁹ See the writer's *The Nature of Capital and Income*, pp. 9, 10 and especially p. 173.

³⁰ Preface, p. ix.

reason he seems to imagine that real costs have no place in the decision of the entrepreneur.

While it is true that a dollar of outlay cost does not represent any fixed amount of real sacrifice on the part of the laborer, it does not follow that there is no relation between the two, much less that there is no importance in the "real cost" concept. On the contrary, real cost plays as fundamental a rôle as utility ("desiredness"), of which it is, in fact, the negative correlate.

Real costs and utility are the opposing forces which influence the economic conduct of every laborer, since this economic conduct—working, striking, bargaining for wages and hours of labor—is one of the cardinal facts in the situation with which the entrepreneur has to deal. Real costs have an important rôle to play. Even if they are in no sense commensurable with outlay costs, they bear a casual relation thereto in the same way that utility—though incommensurable with price—underlies price.

Some of these relations between real and outlay cost would have been made clearer if Professor Davenport had tried in his analysis to "articulate" more closely cost to the individual with cost to society. It is true that he distinguishes between the "collective" point of view and the "competitive" point of view, i. e., the point of view of society as a whole and the point of view of business men as individuals. There is doubtless much importance in emphasizing the distinction, but there is greater importance in showing the relation between the two terms thus distinguished. Professor Davenport does not go much beyond saying:

The real and recurrent difficulty in all of this is that costs and the relations of cost to value do not touch the ultimate causes in the case. Entrepreneur computations take all items of outlay cost as data, as definitive, fundamental facts, which, for any other than the entrepreneur point of view, they indubitably are not.

The nearest approach that Professor Davenport makes to an ultimate analysis of cost is in his criticism of Marshall, of whom he says, "Marshall has a doctrine of real cost, but in just what way, if at all, it is articulated with his doctrine of *money cost* or *expense of production* is not evident."³¹ Marshall, unfortunately,

³¹ Pp. 273, 387.

includes among the costs not only labor but "waiting," which may be shown to be no cost at all.³²

We shall not attempt to enter far into Professor Davenport's criticism of his predecessors, albeit that this criticism fills the major portion of his volume. He reviews in succession the works on cost, value, and distribution of Adam Smith, Ricardo, Senior, John Stuart Mill, Cairnes, and their successors. He traces the development of the utility theory, of the capital concept, of the theories of marginal cost and of marginal utility. He contrasts the classical with the modern writers on cost, value and utility, compares Böhm-Bawerk and Wieser, and examines the attempt of Marshall to reconcile discrepancies in the economic theories of his predecessors. He considers the doctrines of Clark and other American writers. Through it all he keeps up the consistent, connective tissue of his own and ends with a short and useful summary expressing his economic creed.

There can be no question of the thoroughness of Davenport's scholarship and of his familiarity with the majority of the writers cited. It is, moreover, one of the chief merits of his work that he is not a "carping critic," but is possessed of the spirit of seeking out the merits of the writers criticized rather than their faults. As to the justice of the adverse criticisms which he applies, the present writer would speak with diffidence, for he could not pretend to that detailed and ready knowledge of the writers cited necessary to fit him to criticize criticism. In many cases a first reading has conveyed the impression, as so often happens with the best of critics, that some injustice is done. I shall content myself, however, with citing briefly some mild criticism which Professor Davenport passed on myself.

It is true, I am glad to say, that Professor Davenport finds himself in substantial agreement with all, or almost all, of my general conclusions respecting topics covered by his book. He is, however, at variance in respect to a few specific points.³³ In discussing the question whether the productivity of capital has an independent power in creating a rate of interest, Professor

³² See the writer's *The Rate of Interest*, p. 47.

³³ See p. 197. See also Davenport's review of my *Rate of Interest* in the *Journal of Political Economy*, June, 1908.

Davenport maintains that it has such a power, and that this would be revealed, could we imagine a case in which the forces of nature reproduced animals, plants, etc., at a definite rate. Thus if the reproductions were to go on at the rate of 100 per cent. per annum, he believes that the rate of interest would be 100 per cent., in defiance of any rate of preference existing in the minds of man. If a flock of one hundred sheep this year would inevitably result in a flock of two hundred sheep a year hence, the ratio of exchange between present and future sheep would, he thinks, be necessarily the ratio of one to two.

I submit that this conclusion is an error, and that the error is shown in my *Rate of Interest*.³⁴ Professor Davenport says,

Let it be assumed as an extreme test case that present needs or desires are so far weak or so far satiated as to approach the limit of non-existence or disappearance—a situation in which by the very terms of the assumption there can be neither “any prospective underestimate” of the future, nor any inadequacy in “present provision”—there being in fact no desire for present consumables but only a clear appreciation of the certainty of tomorrow’s need. If now it be clear that for each unit of the existing wealth of today, there may by tomorrow be derived two units for tomorrow’s consumption—is it not certain that there will forthwith set in a vigorous competitive bidding for control of the present facts offering a command of tomorrow’s consumable goods, and that there must result an interest rate approximating to 100 per cent. per day?³⁵

But such a condition is self-cured. It is impossible for this great need in the future to exist, when there is ready, in the terms of the case, a means of satisfying it. The result will be that so many units from today’s wealth will be devoted to the production of double their number in tomorrow’s wealth, and that instead of the abundance of satisfactions today compared with the scarcity of tomorrow, there will ensue a stinting today for the sake of the richer harvest tomorrow. This will go on far enough to restore the psychologic condition of a high preference for present as compared with future goods. The final result of the process will be to bring the rate of preference into conformity with the rate of return, whichever of the two has to be most adjusted to this end.

³⁴ Pp. 22–28.

³⁵ P. 246.

Professor Davenport possesses a fluent and graphic style, though he sometimes sacrifices clearness and definiteness of expression in favor of a picturesque and crisp phrase.

The book might be criticized for undue length. Often page after page follows with only a few running lines of text at the head, in order to give room for lengthy footnotes.

As to Professor Davenport's main conclusions, they will seem radical if not heretical to many readers; but others, including the present writer, must give hearty assent. In respect to any "heresies" Professor Davenport can show not only his own cogent arguments, but also weighty authority in the literature reviewed. His views, so far from being out of touch with the thought of others, are the inevitable outcome of that thought. Those who may regard him as a heretic must be blind to the trend of present economic discussion. They do not see the forest for the trees. Professor Davenport has shown that his views, though radical as contrasted with the system of almost any one of the numerous writers reviewed, are, nevertheless, to a great extent, a sort of composite photograph of them all. Nor does this detract from the author's originality. No one who reads his book can doubt for a moment that it is the work of an independent thinker. In our opinion, the highest value of Professor Davenport's work consists in the fact that it points the direction toward which economic theories are tending. It may be hoped that it will lead others to see the handwriting on the wall with respect to obsolete and impractical theories. At the same time, its careful, historical criticism stamps the newer theories with the hall-mark of legitimate historical development.

IRVING FISHER

YALE UNIVERSITY