Number 63 of a series of photographs of past presidents of the Association.

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ECONOMISTS AND THE HISTORY OF IDEAS*

By Paul A. Samuelson

"For there are, in the present times, two opinions: not, as in former ages the true and the false; but the outside and the inside."

J. M. Keynes (1921)

"The proper study of Mankind is man." So said the infallible poet. And past experience at these annual gatherings of the sons and daughters of Adam Smith suggests that the popular subject of discussion among economists is not so much economics as economists. Usually the annual presidential address is an exception—an exception that does not always improve upon the rule.

According to our annals, an expiring president of this occult body begins with two choices. He may, on the one hand, give an address that summarizes his lifework or his basic contribution to some important field of scholarship. Thus, my old teacher, Paul H. Douglas, just as he was about to come out of his academic cocoon and emerge as a senatorial butterfly, gave his 1947 address on the Laws of Production, summarizing his decades of work measuring statistical production functions.

I am afraid this choice is not open to me. My own scholarship has covered a great variety of fields. And many of them involve questions like welfare economics and factor-price equalization; turnpike theorems and osculating envelopes; nonsubstitutability relations in Minkowski-Ricardo-Leontief-Metzler matrices of Mosak-Hicks type; or balanced-budget multipliers under conditions of balanced uncertainty in locally impacted topological spaces and molar equivalences. My friends warn me that such topics are suitable merely for captive audiences in search of a degree—and even then not after dark.

This leaves me still with several possible choices. For one thing, I can always talk about methodology. But although my children think of me as a remnant of "the olden days," to myself I seem just re-

* Presidential address delivered at the Seventy-Fourth Annual Meeting of the American Economic Association, New York, December 27, 1961.

cently to have become emeritus from the category of *enfant terrible;* and the only thing more terrible than the sight of an immature youth is the sight of a half-baked elder statesman. So, that part of methodology which consists of passing on good advice concerning the scholarly pitfalls to avoid and the proper paths to climb, I had better avoid.

But there is another possibility: I could give a sermon tonight on the use and misuse of mathematics in economics. This subject is the only commodity in the world that seems not subject to Gossen's law of diminishing marginal utility. It was only yesterday that three successive presidential addresses touched upon this delicious topic; and the strongest of those attacks on mathematics led to so resonant a response with this annual audience as to give rise to a standing ovation for the speaker.

Thomas Hardy remarked, "If the Archbishop of Canterbury says that God exists, that is all in the day's business; but if he says God does not exist, there you have something really significant." What a Daniel-come-to-Judgment I would be, if I, the lamb that strayed fustus' and mustus' from the fold, were to testify before God and this company that mathematics had all been a horrible mistake; that right along, it has all been there in Marshall, Books III and V; and that the most one needs for life as an economist is a strong voice, and a compass and ruler.

I wish I could be obliging. Yet even if my lips could be brought to utter the comforting words, like Galileo I would hear myself whispering inside, "But mathematics does indeed help."

I am left then finally with one choice. This evening I shall talk less about technical economics than about economists. Where do we members "of the most agreeable of the moral sciences" fit in the great stream of ideas and ideologies? On this solemn occasion I shall eschew gossip, leaving that to the corridors and lobbies. But I shall unavoidably have to deal with personalities and names if I am to explore the interrelations between professional economic thought and the general history of ideas.

I. *Within the Looking Glass*

As my old teacher Schumpeter used to say, "We are all girls here together." Hence, mine can be the view of an insider looking in, and an insider looking out.

I begin with two books. One is a work of scholarship; the other is, and you will excuse the distinction, merely a textbook. Compare *The History of Economic Analysis* by Joseph Schumpeter with *The History of Economic Doctrines* of Gide and Rist, which students used to study in my day when preparing for general examinations. I dare say that all the names mentioned by the latter authors can be found in Schumpeter's index. But how different is the emphasis: reading Gide and Rist you would be forgiven for thinking that Robert Owen was almost as important as Robert Malthus; that Fourier and Saint-Simon were much more important than Walras and Pareto. The A. Young in their index is, of course, Arthur Young, not Allyn Young.

Now turn to Schumpeter. Everything is there; no name left out. But now it is Marshall, Walras, Wicksell and such people who steal the stage. Of course Adam Smith is given his due. But what a due! He is rather patronizingly dismissed as a synthesizer who happened to write the right book at the right time: his analytic contributions are certainly minimized.

How can we account for these differences? By the fact that Schumpeter is writing some 40 years after Gide and Rist? Only in the smallest part, I think. By 1913 Wicksell, Wicksteed, and Wieser had done their great work, but only Wieser gets a mention from Gide and Rist—one mention. The treatment of Walras is even more indicative. Walras is indeed mentioned by them; but yet not primarily for his work as a theorist so much as for his views on nationalization of land, free trade, and the State—views which Pareto and Schumpeter thought of as simply silly, like Irving Fisher's food fads and teetotalism. To verify that I am not having sport by picking on a particular set of authors, turn from Gide and Rist to Alexander Gray's brief book, the busy student's friend, to see how Walras fares there. In Gray, Leon Walras is "crowded out" by his father Auguste and is referred to as the "younger Walras," which is a little like referring to Maynard Keynes as the "younger Keynes."

No one can really deny that we have two different sets of standards here. When I began graduate study at Harvard in 1935, Schumpeter rather shocked me by saying in a lecture that of the four greatest economists in the world, three were French. (I had thought the non-Frenchman was English, probably Adam Smith; but after looking into Schumpeter's later book for the purpose of checking, I think my inference must have been incorrect and that he then meant Alfred Marshall rather than Smith.) And who were the Frenchmen?

Of course, one was Leon Walras, whom Schumpeter had no hesitation in calling the greatest economist of all time, by virtue of his first formulation of general equilibrium. Today there can be little doubt that most of the literary and mathematical economic theory appearing in our professional journals is more an offspring of Walras than of anyone else (and I stress the adjective *literary*). The comparison that Lagrange made of Newton is worth repeating in this connection: Assuredly Newton was the greatest man of science, but also the luckiest.

For there is but one system of the world and Newton was the one who found it. Similarly, there is but one grand concept of general equilibrium and it was Walras who had the insight (and luck) to find it.

I ought to add that this rating by Schumpeter deserves more credit, coming in 1935, than it would coming today. For it had predictive value as to what was to happen to our professional writings. Back in 1935, Marshall was still propped up on his throne and in large parts of the world even the zealots of the mathematical method tended to look upon Walras merely as the predecessor of the great Pareto. The bourse for professional reputations shows changing price fluctuations: if at one time Alfred Marshall was overpraised and quoted at an inflated price which left little of consumer's surplus to the buyer, he had to pay for this by later being sold at an overdiscount—as will become evident.

Since I ought not to leave you waiting for the other shoes to drop, I hasten to name the other Frenchmen. One is Cournot, a choice that will not seem too surprising. Certainly there is a professional competence about the 1838 Cournot, in the field of partial equilibrium, monopoly and oligopoly, that the modern literature only reattained by 1930. (Think only of the *re*discovery in *this* century of the concept of marginal revenue!) I do not know that the name of Schumpeter's final giant will seem so obvious a choice. It is François Quesnay, who is deemed to be great on account of his cryptic *Tableau* and anticipation of the circular flow of economic life. Back in the days before Leontief and the resurrection of Karl Marx's Volume 2 model of circular reproduction, I thought this last choice even more far-fetched than I do today.

II. *The Pecking-Order of Analysts*

I need not labor the point farther. Within economics, we economists rate writers of the past in a quite different order than does the outside world. And, as far as economic analysis itself is concerned, the present generation of economists gives a quite different ranking than did earlier generations of economists.[1]

Now I am not really concerned here with the history of pure theory and the changing fortunes of different writers. A critic can rightly argue that Gide and Rist were writing a history of economic *doctrines*, while Schumpeter was writing a history of economic *analysis*; and hence I ought not to be surprised if there turns out to be a considerable difference in emphasis. Who would want to deny that Cournot,

[1] There is a great deal of evidence that this is more than the view of the *avant garde* and more than a passing fad. One straw in the wind would be to examine the successive revisions since 1939 of a book that did not begin with any prejudice in favor of economic analytics, Eric Roll, *A History of Economic Thought,* 3d ed., Englewood Cliffs, N.J., 1956.

writing in 1838, had an analytical power and freshness that is breathtaking? But who in his right mind could argue that Cournot had been a great force on the history of ideas: what Paris *salon* preoccupied itself with sellers of mineral water? Except through possible indirect influences of his teachings, Cournot's impact on ideology must surely have been negligible.

I quite agree. In many ways the history of a subject's technical analysis is easier to write precisely because it need not involve the determination of social influencings.[2] Tonight we do not want to linger on analytics, except perhaps to draw the obvious moral that, if economists spend more and more of their time on highly technical mathematics and statistics, they must not be surprised if the intelligent man of affairs comes to ignore this part of their activities. It is true that Voltaire and Madame du Châtelet, his great and good friend, wrote profusely on Newton's universal law of gravitation; but this really amounted to vulgarization of that subject, gross vulgarization on the part of Voltaire and neat vulgarization on the part of that gifted lady. While we should not minimize the importance of vulgarization—I mean communication—we must not blink the fact that this is an area where Gresham's Law operates in its most remorseless fashion: vulgar vulgarization drives out subtle, just as strong ideology outsells weak.

The split, between "the inside look" of a subject in terms of the logic and experience of its professional development and its implications for the man-in-the-street or the academician down the campus, is well recognized. No one gets a Nobel Prize for an essay on the relationship of quantum mechanics to free will and God; but one who has already received such a prize will get a better hearing for his random or systematic thoughts on the topic. Nor, these days, do you get appointed to chairs of economics by virtue of your social elo-

[2] If the history of science is still generally in a crude form, that is primarily because scholars have just recently begun to take it seriously. In the case of mathematics, there is a most ludicrous ignorance of the true sequence of contributions: if a formula, such as Lagrange's interpolation formula, is attributed by name to a person, the betting is good that small research will show it appeared in earlier writings. What I have in mind here is not the statement that there is nothing new under the sun and all knowledge is a repetition of previously known knowledge: on the contrary, such a statement is the reverse of the truth; mathematical knowledge has been cumulative and, with enough research and luck. we might hope to clean up the false history of the subject. The situation in mathematics is especially simple if one takes the view that the objects of mathematical research are theorems and that most importance attaches to the date of their first rigorous *proof*. Thus, it is meaningful to say that the "strong ergodic theorem" goes back to G. D. Birkhoff in 1931, and that J. v. Neumann deserves the credit for two-person zero-sum game theory. (But if one is also interested in conjecture, heuristics and partial insight, the matter is not so simple. Some modern mathematicians, one feels, will rename Fermat's Last Theorem to Schwartz's Theorem if the first man to prove it happens to be named Schwartz.) In economics, datings are harder: thus I cannot tell you who first disproved "the labor theory of value," much less who originated it.

quence; indeed, until academic tenure has come, you are best advised not to write for *Harpers* or the *Manchester Guardian* (to say nothing of the *National Review* or the *New Republic*) lest you be indicted for superficiality.

Good writing itself can be suspect. (I interject that if good literary style is indeed a sin, it is not a sin that is very widespread among our economics brotherhood.) John Stuart Mill tells us in his remarkable autobiography that his father, James Mill, thought poetry was overrated; but that since poetry *was* overrated, young John ought to try his hand at it. I believe it was Yale's Tjalling Koopmans, himself a creative economist blessed with clarity of style, who advanced the austere argument that exceptionally fine writing is a biasing factor which might bring to an argument more attention and credence than it really deserved. There is something to this: but no one should be taken in by the false corollary that the *intrinsic* worth of an argument is enhanced by virtue of its being phrased obscurely. Having said this, one must add grudgingly that, while obscurity may not add to the intrinsic worth of an argument, it has often been a contributory ingredient to fame. How many Marxians have read *Das Kapital*—I mean read it through? Bernard Shaw once claimed that he was the only man in England, including H. M. Hyndman and contemporary Marxian leaders, who had read the book. Shaw himself was observed at the British Museum by Harcourt[3] in the act of reading Marx (in the French translation, of course); so at least part of Shaw's claim may be true. But Shaw was sitting in the British Museum with a copy of *Capital* stretched before him and beside it a copy of the score of *Lohengrin*; one can guess on which he could have earned the higher exam grade.

This brings me to mention one of our members who is far away tonight toiling on a distant shore. I refer of course to J. Kenneth Galbraith and have in mind *The Affluent Society*. To compare this book with *The Theory of the Leisure Class* would be in some of our common rooms, to damn it; in some, to praise it. Gibbon tells us how he found his *Decline and Fall* on every boudoir table soon after its publication. When we economists think how often in recent years people have been asking us, " What do you think of *The Affluent Society*?"—and how embarrassing the question has been to so many of us busy beavers—we can appreciate that this work stands as good a chance as any of being read and remembered twenty years from now.

Yet always members of a guild have their defenses against the man who ventures away from home. "It was all in Keynes's 1930 *Saturday*

[3] This gives Sir William Harcourt a second claim to fame, beyond that of his famous one-tenth truth: "We are all socialists now."

Evening Post article, 'Economic Possibilities for Our Grandchildren.'" "Two-thirds of the title came from Tawney's *The Acquisitive Society*." "The point about the need to spend more these days on public rather than private wants was already made eloquently by Alvin Hansen and others; in any case it involves a value judgment not a scientific finding." "Harvard professors may have incomes high enough to satiate them, but most people do not." "So what's the matter with big auto fins? Didn't you ever hear of Freud? And how about Jeremy Bentham's dictum concerning the equality of pleasures, 'Pushpin is as good as poetry?'" "Are commercially created wants different, or less satisfying, or less worthy than natural wants, whatever those may be?" "The book's style is superficially attractive but its message is not profound."

I am afraid people in the boudoir, today or twenty years from now, will not seek the benefit of our professional reactions. Within the body of economics itself, *The Affluent Society* will find a place that is proportionate to the new predictions about economic regularities it may suggest. But whatever the later verdict about the operational meaning of its propositions, we can no more recall it or wipe out half a line of it than we can—by professional exegesis—expunge Henry George's *Progress and Poverty* from the historical record.

III. *Political Economists: Ourselves to Know*

Leaving aside how our own profession rates and ranks the craftsmen of its trade, I now want to close in on the differences between our view of ideologies and *Weltanschauungen* and that of the intelligent man of affairs. Who do *we* think were the great *political* economists as against just great economists?

Adam Smith. Going back no earlier than Adam Smith, we can let Smith stand for the classical tradition. And, in my telescope, he stands on a pinnacle. While I think Smith is underrated as an economic theorist, it must be admitted that his impact as a political economist does not rest upon his having improved upon theories of his friend David Hume; nor upon his having anticipated the various refinements of Malthus, West, Ricardo, Torrens, and John Stuart Mill.

Here is a case where the inside view and the outside view are one. The intelligent man of affairs, and even Macaulay's schoolboy, were profoundly influenced by Smith's attacks on mercantilism and state interference and by his spirited championing of *laissez faire*. To be sure, the amateur never appreciates the nuances of Smith's position: *e.g.*, his skepticism about the businessman's passion for tough competition; his definite role for limited government; his general pragmatism rather than dogmatism.

Still, it is significant that the great critics of the classical tradition generally chose to controvert the *Wealth of Nations* rather than the writings of later members of his school.

David Ricardo. In time Ricardo came to be the whipping boy for continental romantics and historicists. Yet there is not much evidence that they had to read him closely in order to find fault with his abstract methodology. I must confess that I find Ricardo hard to give semester-type grades to. He is par excellence an economist's economist. A sweet man, Ricardo is certainly one of the luckiest that ever lived. And here I have not so much in mind his success in speculating; although he was no slouch in that department, as some facts from his biography illustrate.[4]

Ricardo was lucky in being on the spot when the Napoleonic Wars were causing the value of money to misbehave in the most interesting fashion. He was lucky to have James Mill as taskmaster and press agent. He was lucky in having been deprived of higher education, so that his resulting written expositions had the clumsiness necessary to give that ingredient of obscurity so conducive to a reputation for great profundity. Finally, and I hope it comes as no anticlimax, Ricardo was lucky in being profound.

[4] Cut off for marrying outside his faith with a few thousand dollars, within twenty years Ricardo had become a millionaire a few times over, the equivalent in this present day of taxes, higher prices and higher general real incomes, to tens of millions of dollars. The Duke of Wellington may have regarded the battle of Waterloo as "a damned near close-run thing," but David Ricardo urged before the battle that his friend Robert Malthus go the limit in holding British government bonds; and Malthus, a parson with small means and a convex-from-above utility function, lived to reproach himself for not having followed that advice. Retiring young from business to devote himself to leisure, study, politics, and being a gentleman, Ricardo astutely realized that his numerous children were not chips off the old block in financial acumen; so, and this is purely my conjecture, being convinced by his studies that land rent tends to rise as capital and labor progressively grow, Ricardo arranged to buy self-sufficient gentry estates for his offspring, succeeding so well in his purpose as to keep his descendants out of shirtsleeves until the end of the century and, at the same time, conferring upon them the bonus of being absorbed into county society. At the urging of his friends, Ricardo indulged in conspicuous consumption by buying his way into Parliament. (He did this by invoking the later doctrine of "opportunity cost": *i.e.,* he lent £20,000 interest-free to an Irish holder of a rotten borough, one which Ricardo never bothered to visit.)

Ricardo's parliamentary career was something of an anticlimax. He was not a gripping speaker, and the build-up of his reputation was a grave handicap. It is interesting that Ricardo was a genuinely disinterested man and generally favored measures that were against the interest of landlords. When once accused of having a special interest in some proposal, he candidly replied that his interests were so diverse that he himself could not tell on which side the balance of his Hicksian income effects would fall, thus showing himself to be a master of *quadratic* programming of the type needed for optimal Markowitz portfolio balancing; and little wonder, since in 1817 Ricardo's comparative cost theory had involved him in linear programming. One feels he was a natural at trading in, and arbitraging, Lagrangean multipliers and other dual-price variables. See Volume 10 of the Sraffa edition of Ricardo's work for most of the facts from which this account has been fabricated.

Still, when I once heard George J. Stigler say that Malthus was the most overrated of economists, I heard myself replying: "That's funny. I think David Ricardo is the most overrated of economists." Probably this conversation tells more about Stigler and me than about Ricardo and Malthus. What I had in mind was this: Ricardo was a keen reasoner and almost always comes out to be logical in the end, if you accept his implicit and explicit definitions and assumptions. But he makes unnecessarily rough weather of the matters he deals with, and the reader is inclined to think him miraculous for being able to get out of the holes he has dug for himself by his mode of attack and exposition. Analytically, his theory of rent is excellent but not clearly better than or earlier than the contemporaneous theories of rent of Sir Edward West and Malthus. Ricardo did have a rigorously handled general equilibrium model of primitive type; but its dynamics merely elaborate on what is already in the population theory of Malthus and Smith, and ought not today to be regarded as very "magnificent."

His greatest tour de force was the theory of comparative advantage; and though it would be simply irrelevant to point out that Isaac Gervaise had developed similar notions in the preceding century, one has to take into account that Colonel Torrens, a mere mortal, had also developed pretty much the same analysis at pretty much the same time. Moreover, in most of the debates that Ricardo's work gave rise to, the points of his critics were well taken, not so much in proving that Ricardo's reasoning was wrong in terms of its assumptions, as in pointing out that his conclusions were apt to be misunderstood and were of limited significance. Instead of regarding it as a scandal that so much ink has had to be split over Ricardo's flirtations and retreats from a labor theory of value, his admirers think this makes him a seminal thinker.[5] In short, the notion of Keynes that "Ricardo's mind was the greatest that ever addressed itself to economics" does not agree with my assessment of his high I.Q. or creativeness in relation to that of other economists.

Ricardo's name was certainly used as a rallying cry for the school that favored freer trade in England. But Smith had already made the needed points; if exaggeration is what was needed, Herbert Spencers and Bastiats can usually be found who are unencumbered by the subtleties of refined economic analysis. Moreover, detailed researchers will more and more reveal that the Ricardian School provided the background for early Victorian thinking but did not, in a detailed fashion

[5] See my two papers on Ricardian systems, which elaborate on my views and give a physiocratic interpretation, "A Modern Treatment of the Ricardian Economy," *Quart. Jour. Econ.*, I, Feb. 1959, *73*, 1-35; II, May 1959, *73*, 217-31; also my paper on related Marxian models, "Wages and Interest: A Modern Dissection of Marxian Economic Models," *Am. Econ. Rev.*, Dec. 1957, *47*, 884-912.

satisfactory to the historian of direct political development, have important influences upon such legislative events as the repeal of the Corn Laws. Indeed, Ricardo was subtle enough to muck up the simple-minded case for harmonious free trade.

Jeremy Bentham, a friend of James Mill and Ricardo, was a character who would have been unbelievable if he had appeared in a book. (He once seriously asked James Mill for his eldest son. James thought that an excessive demand on friendship, but did lease him John to help clean out the Augean stables of Bentham manuscripts; this was but one of the feats of Hercules that John accomplished with distinction and at incredibly early ages.)

Bentham's influence on modern law and institutions has always been recognized by historians as having been great: the nineteenth century where legislation is concerned is truly Bentham's shadow writ large, as Dicey has said. Crane Brinton once quipped: "The New Deal had a good deal of old Bentham in it."[6] And I have dared to suggest that the logic of Bentham's position would in later times have gone beyond his fortuitous individualism, so that his thought is really congenial to that of Fabians like Sidney Webb. Bentham, though not an economist's economist nor even primarily an economist, had I am sure an influence far greater than that of Ricardo.

Have I now not proved too much? Why then has Ricardo had the good press with posterity if my strictures are at all near the mark? I think the answer depends upon a different kind of luck. David Ricardo happens to be the darling both of the liberal economists who followed in his direct line and of the Marxian critics of capitalism. Like me, you may not agree with Ricardo's famous letter to Trower which says, "Political economy . . . should rather be called an enquiry into the laws which determine the division of the produce of industry amongst the classes who concur in its formation." But you can perceive how Ricardo's laconic and unsparing remarks about distribution would stimulate the so-called Ricardian socialists who regarded property incomes as exploitation of labor. And once Karl Marx took him up as an object of worthy study, Ricardo was, so to speak, in on both sides of the street. Having Piero Sraffa as an editor merely capped Ricardo's good luck.

John Stuart Mill. I pass by Nassau Senior and the other classical writers to mention Mill briefly. Mill was modest; Marshall was not. The world takes people too much at their word. The result is that Marshall's claims to analytical originality are received too seriously;

[6] C. C. Brinton, *Ideas of Men: The Story of Western Thought,* London 1951, p. 392. Incidentally, Brinton's index has between Rhodes, Cecil and Richards, I. A. no Ricardo, David.

and Mill's forging of the general-equilibrium concept of demand and supply schedules, even before the 1838 date of Cournot's definitive partial-equilibrium formulation, is ignored by all but the true gourmets of economic theory, who recognize it as an analytical contribution of the first magnitude.

John Stuart Mill, son of a dogmatic father, was himself eclectic and had an engaging ability to change his mind when new facts or arguments became available or merely from rethinking old attitudes.[7] It is almost fatal to be flexible, eclectic, and prolific if you want your name to go down in the history books: get known for one idea, however farfetched it may be—such as that the rate of interest has to be zero in the stationary state or that land is the source of all value—and you are sure to get at least a paragraph in the history books for it. Also, Mill had what Nietzsche once referred to as an offensively clear style.

Yet so great was Mill as a thinker and reflector that he was able to overcome these handicaps. His views on liberty will, even in the post-Freud world, never go out of date and can perhaps be summarized in the words of Mrs. Pat Campbell, Bernard Shaw's pen-mistress: People should be allowed to do anything they like—provided only they don't scare the horses in the street.

Mill is truly a transitional figure. Shaw shows this in one of his wittiest plays, *You Never Can Tell.* A typical Shavian New Woman returns from the West Indies after an absence of some 20 years to find that all her revolutionary Millian notions have become old-hat, superseded by new Fabian notions. The same conflict between the eighteenth and twentieth century went on in Mill's own mind: it was fa-

[7] Sweden's Gustav Cassel, whom the public regarded as about the world's leading economist in the 1920's and who might have become a truly outstanding scholar if his temperament had been different, is shown by the following story to be a good opposite to Mill. H. C. Sonne, the distinguished merchant banker and chairman of the National Planning Association, has told how Cassel visited at Sonne's family home in Denmark in the days around the First World War. A guest happened to mention that some scholar had just made a fresh study of the relationship between the price level and gold supply and had come up with conclusions strongly at variance with the famous Cassel thesis. When asked what he intended to do about it, Cassel replied as follows. "I have a son-in-law whom I have put through Divinity School at some considerable expense. Now that he has graduated and qualified for his diploma, he comes to me and says that he has lost his faith and asks what to do. My advice to him was simple: 'Just carry on as if nothing had happened'."

Relevant too is a conversation I had last month in London after I had given the Stamp Memorial Lecture in the University of London for 1961. In that lecture I discussed, among other things, some of the problems of economic forecasting and stressed the need for scientific validation and the desirability of each forecaster's going back ruthlessly to review *ex post* his *ex ante* predictions. "A great mistake," I was told by one of the best forecasters in English academic life. "It is fatal ever to read what you have earlier written. It breaks your nerve as a forecaster." His lips were smiling but his eyes looked serious.

ther James against friend Harriet with John advancing two steps and going back one. It is ironical that evolutionary socialism in England and elsewhere finds itself today backing up from its post-Benthamite insistence on nationalization of the means of production to something like the society dimly envisaged by Mill. No wonder Karl Marx hated Mill and denounced him as a vulgar bourgeois economist. Marx could recognize the enemy when he saw him. (Curiously, the well-read Mill either never heard of Marx or never thought him worth mentioning—this despite Mill's interest in the Revolution of 1848, the *Communist Manifesto* by Marx and Engels of that date, and Mill's survival beyond the 1867 date of *Capital* Vol. 1.)[8]

Karl Marx. From the viewpoint of pure economic theory, Karl Marx can be regarded as a minor post-Ricardian. Unknowingly I once delighted a southern university audience: my description of Marx as a not uninteresting precursor (in Volume 2 of *Capital*) of Leontief's input-output analysis of circular interdependence apparently had infuriated the local village Marxist. Also, a case can be made out that Marx independently developed certain vague apprehensions of underconsumptionist arguments like those of the *General Theory*; but on my report card no one earns too high a grade for such a performance, since almost everyone who is born into this world alive experiences at some time vague intimations that there is a hole somewhere in the circular flow of purchasing power and production. This seems to come on the same chromosome as the gene that makes people believe in Say's Law; and Marx's bitter criticisms of Rodbertus for being an underconsumptionist shows us that he is no exception.

As long as I am being big about admitting small merits in Marx, I might mention a couple of technical suggestions he made about business cycles that are not without some interest: Marx did formulate a vague notion of 10-year replacement cycles in textile equipment as the determinant of cyclical periodicity—which is an anticipation of various modern "echo" theories. He also somewhere mentioned the possibility of some kind of harmonic analysis of economic cycles by mathematics, which with much charity can be construed as pointing toward modern periodogram analysis and Yule-Frisch stochastic dynamics. A much more important insight involved the tying up of technological change and capital accumulation with business cycles, which pointed ahead to the work of Tugan-Baranowsky (himself a Marxian), Spiethoff, Schumpeter, Robertson, Cassel, Wicksell, and Hansen.

What can be gold in the field of fluctuations can be dirt in the context of pure economic theory. Marx claimed in Volume 1 that there was some interesting economics involved in a labor theory of value,

[8] *Cf.* A. L. Harris, ***Economics and Social Reforms,*** New York 1958.

and some believe his greatest fame in pure economics lies in his attempted analysis of "surplus value." Although he promised to clear up the contradiction between "price" and "value" in later volumes, neither he nor Engels ever made good this claim. On this topic the good-humored and fair criticisms of Wicksteed and Böhm-Bawerk have never been successfully rebutted: the contradictions and muddles in Marx's mind must not be confused with the contradictions and muddles in the real world.

Marx, like any man of keen intellect, liked a good problem; but he did not labor over a labor theory of value in order to give us moderns scope to use matrix theory on the "transformation" problem. He wanted to have a theory of exploitation, and a basis for his prediction that capitalism would in some sense impoverish the workers and pave the way for revolution into a new stage of society. As the optimism of the American economist Henry Carey shows, a labor theory of value when combined with technological change is, on all but the most extreme assumptions, going to lead to a great increase in real wages and standards of living. So the element of exploitation had to be worked hard. Here Marx might have emphasized the monopoly elements of distribution: how wicked capitalists, possessed of the nonlabor tools *that are essential* to high production, allegedly gang up on the workers and make them work for a minimum. Or, were it not for his amazing hatred toward Malthus and his theory of population, Marx might have kept wages dismal by virtue of biological conditions of labor supply. The monopoly explanation he did not use, perhaps because he wanted to let capitalism choose its own weapons and assume ruthless competition, and still be able to show it up. Marx tried to demonstrate the same dramatic minimum character of real wages by means of his concept of the "reserve army of the unemployed."

Here is the real Achilles' heel of the Marxian theory of distribution and its implied prophecies of immiserization of the working classes. Under perfect competition, technical change will raise real wages unless the changes are so labor-saving as to raise the rate of maintainable profit immensely; Joan Robinson and others have pointed out how contradictory is Marx's notion that both profit rates and real wages can fall once Marx jettisons Ricardo's emphasis on the scarcity of land and the law of diminishing returns. Marx simply has no *statical* theory of the reserve army. If an appeal is made to a vague dynamic theory of technological displacement or recruitment from the country, close analysis will suggest that Marx (like Mill) was a very bad econometrician of his times, not realizing how much real wages in Western Europe had been raised by new techniques and equipment; and he was a bad theorist because his kind of model would almost certainly lead to shifts in schedules that would raise labor's wages tremendously, in a way more consistent with the 1848 *Communist Manifesto's* paeans of praise for the capitalistic system than with his elaborated writings.[9]

In brief, technical change was gold in giving Marx cyclical insights, and dirt in giving him secular insights or an understanding of evolving equilibrium states. I should warn you that this is my opinion. and that I have always been surprised that I should be a virtual monopolist with respect to this vital analysis.

So far I have been talking about Marx as an economist. And I have been doing my best, subject to truth, to find some merit in him. (You may recall Emerson's neighbor in Concord: when he died the minister tried to find something to say at the funeral eulogy and ended up with, "Well, he was good at laying fires.") Even this represents a resurrection of Marx's reputation. Keynes, for example, was much more typical of our professional attitudes toward Marxism when he dismissed it all as "turbid" nonsense. (In view of the tendency of the radical right—for whom all Chinese look alike—to equate Keynesianism with Marxism, this ironical fact is worth nothing; and also its converse, since there is nothing communists deplore more than the notion that capitalism can be kept breathing healthily by the Keynesian palliatives of fiscal and monetary policy.)

Technical economics has little to do with Karl Marx's important role in the history of human thought. It is true that he and his followers felt that their brand of socialism differed from the sentimental brands of the past in that Marxist socialism was scientifically based and, therefore, had about it an inevitability and a special correctness. I need not labor the point before this group that the "science" involved was not that body of information about commercial and productive activity and those methods of analyzing the behavior relations which *we* would call economics. Political economy in our sense of the word was the mere cap of Karl Marx's iceberg. *Marx's bold economic or materialistic theory of history*, *his political theories of the class struggle*, *his transmutations of Hegelian philosophy* have an importance for the historian of "ideas" that far transcends his façade of economics.

Finally, one must never make the fatal mistake in the history of ideas of requiring of a notion that it be "true." For that discipline, the slogan must be, "The customer is always right." Its objects are what men have *believed;* and if truth has been left out, so much the

[9] If migration from the country kept wages down to a city minimum, then the average wage and living standard of country-*cum*-city would be raised in accordance with the optimization desired by a technocrat—unless, again, Malthusianism is admitted back into the rural hovel.

worse for truth, except for the curiously-undifficult task of explaining why truth does not sell more successfully than anything else. Marx has certainly had more customers than any other one aspiring economist. A billion people think his ideas are important; and for the historian of thought that fact makes them important, in the same way that he would have to regard as diminished in importance the subject of Christianity, were it conceivable that it had been the religion merely of a transitory small group who once occupied the present country of Jordan or the state of New Mexico.

Alfred Marshall. What killed Mill for economists was not the socialism that killed it for Shaw's no-longer-New Woman. The marginalist school of Jevons-Walras-Menger perpetrated the murder. The roster of neoclassical economists would include the names of Böhm-Bawerk from Austria, J. B. Clark from the United States, Pareto from Italy, Wicksteed from England, and Wicksell from Sweden. But, for all that I have said earlier about his overvaluation in the market for reputations, few will doubt that Alfred Marshall of Cambridge is the prototype as *political economist* for this group. Marshall may now be old hat, but in his day he was some headpiece.

Marshall had strong social sympathies. At the same time he realized the harms that precipitate reform may bring. He was the prophet of moderation. If you graft Keynesian models of income determination on his thought and update his Victorianisms, you come close to the median member of this Association. His pupils filled, Foxwell could say by 1888, half the chairs of political economy in the United Kingdom; his influence permeated the other half and, methodologically speaking, today we are all Marshallians in the same sense that we are all higher primates.

But what has been Marshall's role in the history of ideas, the panorama of human thought? Never has he had one-hundredth the notice of, say, Henry George. I remember talking to the aged Frank Taussig at a Harvard Society of Fellows dinner before the war. Taussig quoted in despair a recent remark of John Dewey that Henry George was the greatest economist America had ever produced. George was the whipping boy for the economists just before my time; but within my time as a high school student in the Middle West, you could still find vestigial single-taxers, the old principal of my high school being one and my civics teacher another. George was not original in attacking incomes that come from land; as Foxwell said long ago, nationalizers of land we have always with us. This is understandable from the Hume-Ricardo recognition of rent as a price-determined (rather than price-determining) surplus to a factor in inelastic supply; but, as I have recorded elsewhere, my implicit belief that George gave a good statement of Ricardian rent theory will not stand up after a search through *Progress and Poverty* for suitable quotations to put in an anthology. While the single-tax movement is recognizable today as being adverse to socialism, Henry George's attack on the inequality of property ownership in land was influential in turning many people toward socialism: thus Shaw tells us he became a socialist after hearing Henry George speak in London.[10]

Let us leave aside impact on the *hoi polloi*. What was Marshall's influence over his long life on the educated man of affairs? For years I looked for every trace I could find in books to show that someone other than a professional economist or student had read Marshall. I realize Marshall himself thought he was writing for the businessman; but anyone who looks at the *Principles* will realize that no businessmen in good Queen Victoria's time or since would be likely to find it attractive. (Actually Marshall's literary style is excellent, his graphs are in footnotes, and his rather awkward mathematics is buried in special notes at the end; but all this was to no avail.) I was able to come up essentially with only two bits of evidence, one negative and one positive. Pollock in his letters to Justice Holmes urged him to read Marshall; Holmes, who was a man of the most catholic interests, replied that he had tried it and it was not the dish for him. On the positive side, C.C.N.Y.'s great philosopher, Morris Cohen, reported somewhere that his inclination to be an eclectic in philosophy had received inspiration from Alfred Marshall's eclecticism in economics.

To be sure, Marshall taught at a leading world institution where half the English upper classes received their instruction. But actually he taught at Cambridge little more than 20 years, not very much longer say, than, I have taught at M.I.T. Sixty was a generous number for those who attended his popular lectures, and that was the beginning attendance not the final. As I know from personal conversations with Alfred North Whitehead, Marshall's contemporaries at Cambridge did not like him as a man ("He was a popish man who treated Mary Marshall very badly." "A second class mind?"); and one gets

[10] Later Shaw went successively from Marxism to Jevonsism with a Fabian twist. Philip Wicksteed's conversion of Shaw away from Marxism is one of the most amusing and incredible incidents in the history of thought: for once a rational argument changed, or seemed to change, someone's mind.

It must have been on that same trip to England that Henry George debated Alfred Marshall in Oxford: little David beat Goliath, if we can believe the record; in part perhaps because Marshall was a home-boy, and the well-to-do undergraduates of those days started out hostile to George; there is also the fact gleaned from Henry George's biography that he slept miserably on that trip and the night before the debate. Playing the parlor game of Charles Lamb and William Hazlitt as to which characters in history one would like to meet, I would plunk for being present when Alfred Marshall debated Henry George.

the impression from autobiographies of such contemporaries as J. J. Thomson, the discoverer of the electron and Nobel Prize winner, that they had no great opinion of the economics being offered at that time in Cambridge.

IV. *We Happy Few*

If then Marshall and neoclassical writers have had influence upon the affairs of men, and I think they have had pronounced influence, we must regard these influencings as being indirect rather than direct.

For a long time John Maynard Keynes was known for one famous quotation, the casual remark: "In the long run we are all dead." Now that Keynes himself is dead, he is best known for a different quotation:

> . . . the ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back. I am sure that the power of vested interests is vastly exaggerated compared with the gradual encroachment of ideas. Not, indeed, immediately, but after a certain interval; for in the field of economic and political philosophy there are not many who are influenced by new theories after they are twenty-five or thirty years of age, so that the ideas which civil servants and politicians and even agitators apply to current events are not likely to be the newest. But, soon or late, it is ideas, not vested interests, which are dangerous for good or evil.

This is fine writing. And no doubt it is flattering to our egos. But is it really true? Keynes did not specify what academic scribblers he had in mind, and I am not sure how easy it would have been for him to do so. (Thus, when we see a politician favoring protective tariffs or a balanced budget, do we have to look for any profound analysis from some earlier thinker or can we not simply reflect that most people generate such notions almost unthinkingly? Yet, even if that is so, what are we to conclude in the case where we observe a politician favoring free trade or deficit-financing? The issue is certainly not a simple one.)

The leaders of this world may seem to be led around through the nose by their economist advisers. But who is pulling and who is pushing? And note this: he who picks his doctor from an array of competing doctors is in a real sense his own doctor. The Prince often gets to hear what he wants to hear.

Where does that leave us then as economists? It leaves us where we ought to be. Our map of the world differs from that of the layman. Perhaps our map will never be a best seller. But a discipline like economics has a logic and validity of its own. We believe in our map because we cannot help doing so. In Frank Ramsey's beautiful quotation from William Blake:

"Truth can never be told so as to be understood and not be believed."

Ours is an uncertain truth and economic scholars are humble about its precision—but our humbleness is built out of knowledge, not out of ignorance.

Not for us is the limelight and the applause. But that doesn't mean the game is not worth the candle or that we do not in the end win the game. In the long run, the economic scholar works for the only coin worth having—our own applause.[11]

[11] Lest I be misunderstood, I elaborate. This is not a plea for "Art for its own sake," "Logical elegance for the sake of elegance." It is not a plea for leaving the real-world problems of political economy to noneconomists. It is not a plea for short-run popularity with members of a narrow in-group. Rather it is a plea for calling shots as they really appear to be (on reflection and after weighing all evidences), even when this means losing popularity with the great audience of men and running against "the spirit of the times."