(such as Frisch's work of 1933). They were based, however, on much more arbitrary assumptions than Keynes' work.

John Maynard Keynes 1883-1946*

J.A. Schumpeter

I

In his sparkling essay on the Great Villiers Connection, 1 Keynes revealed a sense of the importance of hereditary ability — of the great truth, to use Karl Pearson's phrase, that ability runs in stocks — that fits but ill into the picture many people seem to harbor of his intellectual world. The obvious inference about his sociology is strengthened by the fact that in his biographical sketches he was apt to stress ancestral backgrounds with unusual care. He would therefore understand my regret at my inability, owing to lack of time, to probe into the past of the Keynes Connection. Let us hope that someone else will do this, and content ourselves with an admiring glance at the parents. He was born on the fifth of June, 1883, the eldest son of Florence Ada Keynes, daughter of the Reverend John Brown, D.D., and of John Neville Keynes, Registrar of the University of Cambridge — a mother of quite exceptional ability and charm, one-time mayor of Cambridge, and a father who is known to all of us as an eminent logician and author, among other things, of one of the best methodologies of economics ever written.²

Let us note the academic-clerical background of the subject of this memoir. The implications of this background — both the eminently English quality of it and the gentry element in it — become still clearer when we add two names: Eton and King's College, Cambridge. Most of us are teachers, and teachers are prone to exaggerate the formative influence of education. But nobody will equate it to zero. Moreover, there is nothing to show that John Maynard's reaction to either place was anything but positive. He seems to have enjoyed a thoroughly successful scholastic career. In 1905 he was elected President of the Cambridge Union. In the same year he emerged as twelfth Wrangler.

Theorists will notice the latter distinction which cannot be attained without some aptitude for mathematics plus hard work — work hard enough to make it easy for a man who has gone through that discipline to acquire any more advanced technique he may wish to master. They will recognize the

^{*}Source: American Economic Review, Vol. 36, September 1946, pp. 495-518.

mathematical quality of mind that underlies the purely scientific part of Kevnes's work, perhaps also the traces in it of a half-forgotten training. And some of them may wonder why he kept aloof from the current of mathematical economics which gathered decisive momentum at just about the time when he first entered the field. Nor is this all. Though never definitely hostile to mathematical economics - he even accepted the presidency of the Econometric Society — he never threw the weight of his authority into its scale. The advice that emanated from him was almost invariably negative. Occasionally his conversation revealed something akin to dislike.

Explanation is not far to seek. The higher ranges of mathematical economics are in the nature of what is in all fields referred to as "pure science." Results have little bearing — as yet, in any case — upon practical questions. And questions of policy all but monopolized Keynes's brilliant abilities. He was much too cultivated and much too intelligent to despise logical niceties. To some extent he enjoyed them; to a still greater extent he bore with them; but beyond a boundary which it did not take him long to reach, he lost patience with them. L'art pour l'art was no part of his scientific creed. Wherever else he may have been progressive, he was not a progressive in analytic method. We shall see that this also holds in other respects that are unconnected with the use of higher mathematics. If the purpose seemed to justify it, he had no objection of using arguments that were as crude as those of Sir Thomas Mun.

II

An Englishman who entered adult life from Eton and Cambridge, who was passionately interested in the policy of his nation, who had conquered the presidential chair of the Cambridge union in the symbolic year 1905 that marked the passing of an epoch and the dawn of another4 — why did such an Englishman not embark upon a political career? Why did he go to the India Office instead? Many pro's and con's enter into a decision of this kind, money among others, but there is one point about it which it is essential to grasp. Nobody could ever have talked to Keynes for an hour without discovering that he was the most unpolitical of men. The political game as a game interested him no more than did racing — or, for that matter, pure theory per se. With quite unusual gifts for debate and with a keen perception of tactical values, he yet seems to have been impervious to the lure - nowhere anything like as strong as it is in England — of the charmed circle of political office. Party meant little or nothing to him. He was ready to cooperate with anyone who offered support for a recommendation of his and to forget any past passage of arms. But he was not ready to cooperate with anyone on any other terms, let alone to accept anyone's leadership. His loyalties were loyalties to measures, not loyalties to individuals or groups. And still less than a respector of persons was he a respector of creeds or ideologies or flags.

Was he not, therefore, cut out for the rôle of an ideal civil servant, by nature made to become one of those great permanent Under-secretaries of State whose discreet influence counts for so much in the shaping of England's recent history? Anything but that. He had no taste for politics, but he had less than no taste for patient routine work and for breaking in, by gentle arts, that refractory wild beast, the politician. And these two negative propensities, the aversion to the political arena and the aversion to red tape, propelled him toward the rôle for which he was indeed by nature made, for which he quickly found the form that suited him to perfection, and from which he never departed throughout his life. Whatever we may think of the psychological laws which he was to formulate, we cannot but feel that, from an early age, he thoroughly understood his own. This is, in fact, one of the major keys to the secret of his success — and also to the secret of his happiness: for unless I am much mistaken his life was an eminently happy one.

Thus, after two years at the India Office (1906-08) he went back to his university, accepting a fellowship at King's (1909), and quickly established himself in the circle of his Cambridge fellow economists and beyond. He taught straight Marshallian doctrine with the Fifth Book of the Principles as the center, the doctrine that he mastered as few people did and with which he remained identified for twenty years to come. A picture survives in my memory of how he then looked to a casual visitor to Cambridge - the picture of the young teacher of spare frame, ascetic countenance, flashing eyes, intent and tremendously serious, vibrating with what seemed to that visitor suppressed impatience, a formidable controversialist whom nobody could overlook, everybody respected, and some liked. His rising reputation is attested by the fact that as early as 1911 he was appointed editor of the Economic Journal in succession to its first editor, Edgeworth. This key position in the world of economics he filled without interruption and with unflagging zeal until the spring of 1945.6 Considering the length of his tenure of this office and all the other interests and avocations in the midst of which he filled it, his editorial performance is truly remarkable, in fact, almost unbelievable. It was not only that he shaped the general policy of the Journal and of the Royal Economic Society, of which he was secretary. He did much more than this. Many articles grew out of his suggestions; all of them received, from the ideas and facts presented down to punctuation, the most minute critical attention. We all know the results, and everyone of us has - no doubt - his own opinion about them. But I feel confident of speaking for all of us when I say that, taken as a whole, Keynes the editor has had no equal since Du Pont de Nemours managed the Ephémérides.

The work at the India Office was not more than an apprenticeship that would have left few traces in a less fertile mind. It is highly revealing not only of the vigor but also of the type of Keynes's talent that it bore fruit in his case: his first book — and first success — was on Indian Currency and Finance. 8 It appeared in 1913, when he was also appointed member of the Royal Commission on

Indian Finance and Currency (1913-14). I think it fair to call this book the best English work on the gold exchange standard. Much more interest attaches. however, to another question that is but distantly related to the merits of this performance taken by itself; can we discern in it anything that points toward the General Theory? In the Preface to the latter, Keynes himself claimed not more than that his teaching of 1936 seemed to him "a natural evolution of a line of thought which he had been pursuing for several years." On this I shall offer some comments later on. But now I will make bold to assert that, though the book of 1913 contains none of those characteristic propositions of the book of 1936 that have been felt to be so "revolutionary," the general attitude taken toward monetary phenomena and monetary policy by the Keynes of 1913 clearly foreshadowed that of the Keynes of the Treatise (1930).

Monetary management was then no novelty, of course — which is precisely why it should not have been heralded as a novelty in the 20's and 30's - and preoccupation with Indian problems was particularly likely to induce awareness of its nature, necessity, and possibilities. But Keynes's vivid appreciation of its bearing not only upon prices and exports and imports, but also on production and employment was nevertheless something new, something that, if it did not uniquely determine, yet conditioned his own line of advance. Moreover, we must remember how closely his theoretical development in post-war times was related to the particular situations in which he offered practical advice and which neither he nor anyone else foresaw in 1913: add the theoretical implications of the English experience in the 20's to the theory of Indian Currency and Finance, and you will get the substance of the Keynesian ideas of 1930. This statement is conservative. I could go further — a little — were I not afraid of falling into an error that is very common among biographers.

Ш

In 1915, the potential public servant in the academic gown turned into an actual one: he entered the Treasury. English finance during the First World War was eminently "sound" and spelled a moral performance of the first order. But it was not conspicuous for originality, and it is possible that the brilliant young official then acquired his dislike of the Treasury Mind and the Treasury View that became so marked later on. His services were, however, appreciated, for he was chosen to serve as Principal Representative of the Treasury at the Peace Conference — which might have been a key position if such a thing could have existed within the orbit of Lloyd George — and also as Deputy for the Chancellor of the Exchequer on the Supreme Economic Council. More important than this, speaking from the biographer's standpoint, is his abrupt resignation in June, 1919, which was so characteristic of the man and of the kind of public servant he was. Other men had much the same misgivings about the peace, but of course they could not possibly speak out. Keynes was made of different stuff. He resigned and told the world why. And he leapt into international fame.

The Economic Consequences of the Peace (1919) met with a reception that makes the word Success sound commonplace and insipid. Those who cannot understand how luck and merit intertwine will no doubt say that Keynes simply wrote what was on every sensible man's lips; that he was very favorably placed for making his protest resound all over the world; that it was this protest as such and not his particular argument that won him every ear and many thousands of hearts; and that, at the moment the book appeared, the tide was already running on which it was to ride. There is truth in all this. Of course, there was an unique opportunity. But if we choose, on the strength of this, to deny the greatness of the feat, we had better delete this phrase altogether from the pages of history. For there are no great feats without preëxisting great opportunities.

Primarily the feat was one of moral courage. But the book is a masterpiece packed with practical wisdom that never lacks depth; pitilessly logical yet never cold; genuinely humane but nowhere sentimental; meeting all facts without vain regrets but also without hopelessness: it is sound advice added to sound analysis. And it is a work of art. Form and matter fit each to perfection. Everything is to the point, and there is nothing in it that is not to the point. No idle adornment disfigures its wise economy of means. The very polish of the exposition — never again was he to write so well — brings out its simplicity. In the passages in which Keynes tries to explain, in terms of the dramatis personae, the tragic failure of purpose that produced the Peace, he rises to heights that have been trodden by few.9

The economics of the book, as well as of A Revision of the Treaty (1922) that complements and in some respects amends its argument, is of the simplest and did not call for any refined technique. Nevertheless, there is something about it that calls for our attention. Before embarking on his great venture in persuasion, Keynes drew a sketch of the economic and social background of the political events he was about to survey. With but slight alterations of phrasing, this sketch may be summed up like this: Laissez-faire capitalism, that "extraordinary episode," had come to an end in August, 1914. The conditions were rapidly passing in which entrepreneural leadership was able to secure success after success, propelled as it had been by rapid growth of populations and by abundant opportunities to invest that were incessantly recreated by technological improvements and by a series of conquests of new sources of food and raw materials. Under these conditions, there had been no difficulty about absorbing the savings of a bourgeoisie that kept on baking cakes" in order not to eat them." But now (1920) those impulses were giving out, the spirit of private enterprise was flagging, investment opportunities were vanishing, and bourgeois saving habits had, therefore, lost their social function; their persistence actually made things worse than they need have been.

Here, then, we have the origin of the modern stagnation thesis — as distinguished from the one which we may, if we choose, find in Ricardo. And

here we also have the embryo of the General Theory. Every comprehensive "theory" of an economic state of society consists of two complementary but essentially distinct elements. There is, first, the theorist's view about the basic features of that state of society, about what is and what is not important in order to understand its life at a given time. Let us call this his vision. And there is. second, the theorist's technique, an apparatus by which he conceptualizes his vision and which turns the latter into concrete propositions or "theories." In those pages of the Economic Consequences of the Peace we find nothing of the theoretical apparatus of the General Theory. But we find the whole of the vision of things social and economic of which that apparatus is the technical complement. The General Theory is the final result of a long struggle to make that vision of our age analytically operative.

IV

For economists of the "scientific" type Keynes is, of course, the Keynes of the General Theory. In order to do some justice to the straightline development which leads up to it from the Consequences of the Peace, and of which the main stages are marked by the Tract and by the Treatise, I shall have to brush aside ruthlessly many things that ought not to go unrecorded. Three foothills of the Consequences are, however, mentioned in the note below, 10 and a few words must be said on A Treatise on Probability which he published in 1921. There cannot be, I fear, much question about what Keynes means for the theory of probability, though his interest in it went far back: his fellowship dissertation had been on the subject. The question that is of interest to us is what the theory of probability meant for Keynes. Subjectively, it seems to have been an outlet for the energies of a mind that found no complete satisfaction in the problems of the field to which, as much from a sense of public duty as from taste, he devoted most of his time and strength. He entertained no very high opinion about the purely intellectual possibilities of economics. Whenever he wished to breathe the air of high altitudes, he did not turn to our pure theory. He was something of a philosopher or epistemologist. He was interested in Wittgenstein. He was a great friend of that brilliant thinker who died in the prime of life - Frank Ramsey, to whose memory he erected a charming monument. 11 But no merely receptive attitude could have satisfied him. He had to have a flight of his own. It is highly revelatory of the texture of his mind that he chose probability for the purpose — a subject bristling with logical niceties yet not entirely without utilitarian connotation. His indomitable will produced what, seen as I am trying to see it, was no doubt a brilliant performance, whatever specialists, non-Cambridge specialists particularly, might have to say about it.

We are drifting from the work to the man. Let us then use this opportunity for looking at him a little more closely. He had returned to King's and to his pre-war pattern of life. But the pattern was developed and enlarged. He continued to be

an active teacher and research worker, he continued to edit the Journal; he continued to make the public cares his own. But though he strengthened his ties with King's by accepting the important (and laborious) function of Bursar, the London house, at 46 Gordon Square, became second headquarters before long. He acquired an interest in, and became chairman of, The Nation — which superseded the Speaker in 1921, absorbed the Athenaeum, and was, in 1931, merged with The New Statesman (The New Statesman and Nation) — to which he directed a current stream of articles that would have been full-time work for some other men. Also, he became chairman of the National Mutual Life Assurance Society (1921-38) to which he gave much time, and managed an investment company, earning a considerable income from such business pursuits. There was no nonsense about him, in particular no nonsense about business and money making: he frankly appreciated the comforts of a proper establishment; and not less frankly he used to say (in the 20's) that he would never accept a professorial appointment because he could not afford to do so. In addition to all this, he served actively on the Economic Advisory Council and on the Committee on Finance and Industry (Macmillan Committee). In 1925, he married a distinguished artist, Lydia Lopokova, who proved a congenial companion and devoted helpmate - "in sickness and in health" - to the end.

That combination of activities is not unusual. What made it unusual and, indeed, a marvel to behold is the fact that he put as much energy in each of them as if it had been his only one. His appetite and his capacity for efficient work surpass belief, and his power of concentration on the piece of work in hand was truly Gladstonian; whatever he did, he did with a mind freed from everything else. He knew what it is to be tired. But he hardly seems to have known dead hours of cheerlessness and faltering purpose.

Nature is wont to impose two distinct penalties upon those who try to beat out their stock of energy to the thinnest leaf. One of these penalties Keynes undoubtedly paid. The quality of his work suffered from its quantity and not only as to form: much of his secondary work shows the traces of haste, and some of his most important work, the traces of incessant interruptions that injured its growth. Who fails to realize this — to realize that he beholds work that has never been allowed to ripen, has never received the last finishing touch — will never do justice to Keynes's powers. 12 But the other penalty was remitted to him.

In general, there is something inhuman about human machines that fully use every ounce of their fuel. Such men are mostly cold in their personal relations, inaccessible, preoccupied. Their work is their life, no other interests exist for them, or only interests of the most superficial kind. But Keynes was the exact opposite of all this — the pleasantest fellow you can think of; pleasant, kind, and cheerful in the sense in which precisely those people are pleasant, kind, and cheerful who have nothing on their minds and whose one principle it is never to allow any pursuit of theirs to degenerate into work. He was affectionate. He was always ready to enter with friendly zest into the views, interests, and troubles of others. He was generous, and not only with money. He was sociable, enjoyed conversation, and shone in it. And, contrary to a widely spread opinion. he could be polite, polite with an old-world punctilio that costs time. For instance. he would refuse to sit down to his lunch, in spite of telegraphic and telephonic expostulation, until his guest, delayed by fog in the Channel, put in appearance at 4 p.m.

His extracurricular interests were many, and each of them he pursued with joyful alacrity. But this is not all of it. Once more, people are not uncommon who, in spite of absorbing avocations, enjoy some recreative activities in a passive way. The Keynesian touch is that with him recreation was creative. For instance, he loved old books, niceties of bibliographic controversy, details of the characters, lives, and thoughts of men of the past. Many people share this taste which may have been fostered in him by the classical ingredients in his education. But whenever he indulged it, he took hold like the workman he was. and we owe to his hobby several not unimportant clarifications on points of literary history. 13 He also was a lover and, up to a point, a good judge of pictures, to a modest extent also a collector. He thoroughly enjoyed a good play, and founded and generously financed the Cambridge Arts Theatre, which no one who went to it will forget. And, once upon a time, an acquaintance of his received the following note from him, evidently dashed off in high good humor. "Dear . . ., if you wish to know what at the moment exclusively occupies my time, look at the enclosed."14 The enclosure consisted of a program or prospectus of the "Carmago Ballet."

I return to the highway. As stated above, our first stop is at the Tract on Monetary Reform (1923). Since, with Keynes, practical advice was the goal and beaconlight of analysis, I will do what in the case of other economists I should consider an offense to do, viz., invite readers to look first at what it was he advocated. It was, in substance, stabilization of the domestic price level for the purpose of stabilizing the domestic business situation, secondary attention being paid also to the means of mitigating short-run fluctuations of foreign exchange. In order to achieve this he recommended that the monetary system created by the necessities of warfare should be carried over into the peace economy, the boldest of the various suggestions offered — with an evident trepidation quite unlike him — being the separation of the note issue from the gold reserve which he wished, however, to retain and of which he was anxious to emphasize the importance.

There are two things in this piece of advice that should be carefully noticed: first, its specifically English quality; second, ex visu of England's short-run interests and of the kind of Englishman the adviser was, its sober wisdom and conservativism.15 It cannot be emphasized too strongly that Keynes's advice was in the first instance always English advice, born of English problems even where addressed to other nations. Barring some of his artistic tastes, he was surprisingly insular, even in philosophy, but nowhere so much as in economics. And, he was fervently patriotic - of a patriotism which was indeed quite untinged by vulgarity but was so genuine as to be subconscious and therefore all the more powerful to impart a bias to his thought and to exclude full understanding of foreign (also American) viewpoints, conditions, interests, and especially creeds. Like the old free-traders, he always exalted what was at any moment truth and wisdom for England into truth and wisdom for all times and places. 16 But we can not stop at this. In order to locate the standpoint from which his advice was given it is further necessary to remember that he was of the high intelligentsia of England, unattached to class or party, a typical pre-war intellectual, who rightly claimed, for good and ill, spiritual kinship with the Locke-Mill connection.

What was it, then, that this patriotic English intellectual beheld? The generalization we have already noticed in the pages of the Consequences. But England's case was more specific than that. She had not emerged from the war as she had emerged from the war of the Napoleonic era. She had emerged impoverished; she had lost many of her opportunities for the moment and some of them for good. Not only this, but her social fabric had been weakened and had become rigid. Her taxes and wage rates were incompatible with vigorous development, yet there was nothing that could be done about it. Keynes was not given to vain regrets. He was not in the habit of bemoaning what could not be changed. Also he was not the sort of man who would bend the full force of his mind to the individual problems of coal, textiles, steel, shipbuilding (though he did offer some advice of this kind in his current articles). Least of all was he the man to preach regenerative creeds. He was the English intellectual, a little deraciné and beholding a most uncomfortable situation. He was childless and his philosophy of life was essentially a short-run philosophy. So he turned resolutely to the only "parameter of action" that seemed left to him, both as an Englishman and as the kind of Englishman he was - monetary management. Perhaps he thought that it might heal. He knew for certain that it would sooth and that return to a gold system at pre-war parity was more than his England could stand.

If only people could be made to understand this, they would also understand that practical Keynesianism is a seedling which cannot be transplanted into foreign soil: it dies there and becomes poisonous before it dies. But in addition they would understand that, left in English soil, this seedling is a healthy thing and promises both fruit and shade. Let me say once and for all: all this applies to every bit of advice that Keynes ever offered. For the rest, the advocacy of monetary management in the Tract was anything but revolutionary. There was, however, a novel emphasis on it as a means of general economic therapeutics. And concern with the saving-investment mechanism is indicated in the first lines of the Preface and throughout the first chapter.17 Thus, though the immediate task before the author prevented him from going very far into these matters, the book does indicate further advance toward the General Theory. Analytically, Keynes accepted the quantity theory which "is fundamental. Its correspondence with facts is not open to question" (p.81). All the more important is it for us to realize that this acceptance, resting as it does on the very common confusion between the quantity theory and the equation of exchange. meant much less than it seems to mean exactly as Keynes's later repudiation of the quantity theory means much less than it seems to mean. What he intended to accept was the equation of exchange — in its Cambridge form — which, whether defined as an identity or as an equilibrium condition, does not imply any of the propositions characteristic of the quantity theory in the strict sense. Accordingly, he felt free to make velocity — or k, its equivalent in the Cambridge equation — a variable of the monetary problem, very properly giving Marshall credit for this "development of the traditional way of considering the matter" (p.86). This is the Liquidity Preference in embryonic form. Keynes overlooked that this theory can be traced back to Cantillon — at least and that it had been developed, though sketchily, by Kemmerer, 18 who said that "large sums of money are continually being hoarded" and that "the proportion of the circulating medium which is hoarded . . . is not constant." We cannot go into the many excellent things in the Tract, e.g., the masterly section on the

(1930).With the exception of the Treatise on Probability, Keynes never wrote another work in which the hortatory purpose is less visible than it is in the Treatise on Money. It is there all the same, and not confined to the last book (VII), in which, among other things, we find all the essentials of Bretton Woods - what an extraordinary achievement! Primarily, however, those two volumes are no doubt Keynes's most ambitious piece of genuine research, of research so brilliant and yet so solid that it is a thousand pities that the harvest was garnered before it was ripe. If only he had learned something from Marshall's craying for "impossible perfection" instead of lecturing him about it! (Essays in Biography, pp.211-12).19 Moreover, Professor Myrdal's gentle sneer at "that Anglo-Saxon kind of unnecessary originality" is amply justified. 20 Nevertheless, the book was the outstanding performance in its field and day. All I can do, however, is to collect the most important signposts that point towards the General Theory.21

Forward Market in Exchanges (Chap. III, sec. IV) and on Great Britain (Chap. V. sec. I) which it is impossible to admire too highly. We must hurry on to our

"second stop" on the road to the General Theory, the Treatise on Money

There is, first, the conception of the theory of money as the theory of the economic process as a whole that was to be fully developed in the General Theory. This conception is, second, embedded in the vision or diagnosis of the contemporaneous state of the economic process that never changed from the Consequences. Third, saving and investment decisions are resolutely separated, quite as resolutely as in the General Theory, and private thrift is well established in its rôle of villain of the piece. The recognition extended to the work of "Mr. J.A. Hobson and others" (Vol. I, p.179) is highly significant in this respect. And we learn that a thrift campaign is not the way to bring down the rate of interest (e.g., Vol. II, p.207). Differences in conceptualization sometimes only in terminology — obscure but do not eliminate the fundamental identity of the ideas the author strives to convey. Thus, fourth, much of the argument runs in terms of the Wicksellian divergence between the "natural" and the "money" rate of interest. To be sure, the latter is not yet the rate of interest, and neither the former nor profits are as yet turned into the "marginal efficiency of capital." But the argument clearly suggests both steps. Fifth, the emphasis upon expectations, upon the "bearishness' that is not yet liquidity preference from the speculative motive, and the theory that the fall in money wage rates in depression ("reduction in the rate of efficiency-earnings") will tend to reëstablish equilibrium if and because it will act on interest (bank rate) by reducing the requirements of Industrial Circulation — all these and many other things (bananas, widows' cruses, Danaides' jars) read like imperfect and embarrassed first statements of General Theory propositions.

VI.

The Treatise was not a failure in any ordinary sense of the word. Everybody saw its points and, with whatever qualifications, paid his respects to Keynes's great effort. Even damaging criticism, such as Professor Hansen's criticism of the Fundamental Equations, 22 or Professor von Hayek's criticism of Keynes's basic theoretical structure.23 were as a rule tempered with well-deserved eulogy. But from Keynes's own standpoint it was a failure, and not only because its reception did not measure up to his standard of success. It had somehow missed fire — it had not really made a mark. And the reason was not far to seek: he had failed to convey the essence of his own personal message. He had written a treatise and, for the sake of systematic completeness, overburdened his text with material about price indices, the modus operandi of bank rates, deposit creation, gold and what not all of which, whatever its merits, was akin to current doctrine and hence, for his purpose, not sufficiently distinctive. He had entangled himself in the meshes of an apparatus that broke down each time he attempted to make it grind out his own meanings. There would have been no point in trying to improve the work in detail. There would have been no point in trying to fight criticisms, the justice of many of which he had to admit. There was nothing for it but to abandon the whole thing, hull and cargo, to renounce allegiances and to start afresh. He was quick to learn the lesson.

Resolutely cutting himself off from the derelict, he braced himself for another effort, the greatest of his life. With brilliant energy he took hold of the essentials of his message and bent his mind to the task of forging a conceptual apparatus that would express these and — as nearly as possible — nothing else. He succeeded to his satisfaction. And so soon as he had done so — in December, 1935 - he buckled on his new armor, unsheathed his sword and took the field again, boldly claiming that he was going to lead economists out of errors of 150 years' standing and into the promised land of truth.

Those around him were fascinated. While Keynes was remodeling his work, he currently talked about it in his lectures, in conversation, in the "Keynes Club" that used to meet in his rooms at King's. And there was a lively give and take. "... I have depended on the constant advice and constructive criticism of Mr. R.F. Kahn. There is a great deal in this book which would not have taken the shape it has except at his suggestion" (General Theory, Preface, p.viii). Considering all the implications of Richard Kahn's article on "The Relation of Home Investment to Unemployment," published in the Economic Journal as early as June, 1931, we shall certainly not suspect those two sentences of overstatement. Some credit was also given, in the same place, to Mrs. Robinson, Mr. Hawtrey, and Mr. Harrod.²⁴ There were others — some of the most promising young Cambridge men among them. And they all talked. Glimpses of the new light began to be caught by individuals all over the Empire and in the United States. Students were thrilled. A wave of anticipatory enthusiasm swept the world of economists. When the book came out at last, Harvard students felt unable to wait until it would be available at the bookseliers; they clubbed together in order to speed up the process and arranged for direct shipment of a first parcel of copies.

VII

The social vision first revealed in the Economic Consequences of the Peace, the vision of an economic process in which investment opportunity flags and saving habits nevertheless persist, is theoretically implemented in the General Theory of Employment, Interest, and Money (Preface dated December 13, 1935) by means of three schedule concepts: the consumption function, the efficiency-ofcapital function, and the liquidity-preference function.²⁵ These together with the given wage-unit and the equally given quantity of money "determine" income and ipso facto employment (if and so far as the latter is uniquely determined by the former), the great dependent variables to be "explained." What a cordon bleu to make such a sauce out of such scanty material! Let us see how he did it.

(1) The first condition for simplicity of a model is, of course, simplicity of the vision which it is to implement. And simplicity of vision is in part a matter of genius and in part a matter of willingness to pay the price in terms of the factors that have to be left out of the picture. But if we place ourselves on the standpoint of Keynesian orthodoxy and choose to accept his vision of the economic process of our age as the gift of genius whose glance pierced through the welter of surface phenomena to the simple essentials that lie below, then there can be little objection to his aggregative analysis that produced his results.

Since the aggregates chosen for variables are, with the exception of

employment, monetary quantities or expressions, we may also speak of monetary analysis and, since national income is the central variable, of income analysis. Richard Cantillon was the first, I think, to indicate a full-fledged schema of aggregative, monetary, and income analysis, the one worked out by François Quesnay in his tableau economique. Quesnay, then, is the true predecessor of Keynes, and it is interesting to note that his views on saving were identical with those of Keynes: the reader can easily satisfy himself of this by looking up the Maximes. It should, however, be added that the aggregative analysis of the General Theory does not stand alone in modern literature; it is a member of a family that had been rapidly growing.²⁷

- (2) Keynes further simplified his structure by avoiding, as much as possible, all complications that arise in process analysis. The exact skeleton of Keynes's system belongs, to use the terms proposed by Ragnar Frisch, to macrostatics. not to macrodynamics. In part this limitation must be attributed to those who formulated his teaching rather than to his teaching itself which contains several dynamic elements, expectations in particular. But it is true that he had an aversion to "periods" and that he concentrated attention upon considerations of static equilibrium. This removed an important barrier to success — a difference equation as yet affects economists as the face of Medusa.
- (3) Furthermore, he confined his model though not always his argument - to the range of short-run phenomena. While points (1) and (2) are commonly emphasized, it does not seem to be realized sufficiently how very strictly short run his model is and how important this fact is for the whole structure and all the results of the General Theory. The pivotal restriction is that not only production functions and not only methods of production but also the quantity and quality of plant and equipment are not allowed to change, a restriction which Keynes never tires of impressing upon the reader at crucial turns of his way (see e.g., p.114 and p.295).28

This permits many otherwise inadmissible simplifications: for instance, it permits treating employment as approximately proportional to income (output) so that the one is determined as soon as the other is. But it limits applicability of this analysis to a few years at most - perhaps the duration of the "40 months' cycle" — and, in terms of phenomena, to the factors that would govern the greater or smaller utilization of an industrial apparatus if the latter remains unchanged. All the phenomena incident to the creation and change in this apparatus, that is to say, the phenomena that dominate the capitalist processes, are thus excluded from consideration.

As a picture of reality this model becomes most nearly justifiable in periods of depression when also liquidity preference comes nearest to being an operative factor in its own right. Professor Hicks was therefore correct in calling Keynes's economics the economics of depression. But from Keynes's own standpoint, his model derives additional justification from the secular stagnation thesis. Though it remains true that he tried to implement an essentially long-run vision by a short-run model, he secured, to some extent, the freedom for doing so by

reasoning (almost) exclusively about a stationary process or, at all events, a process that stays at, or oscillates about, levels of which a stationary fullemployment equilibrium is the ceiling. With Marx, capitalist evolution issues into breakdown. With J.S. Mill, it issues into a stationary state that works without hitches. With Keynes, it issues into a stationary state that constantly threatens to break down. Though Keynes's "breakdown theory" is quite different from Marx's, it has an important feature in common with the latter: in both theories, the breakdown is motivated by causes inherent to the working of the economic engine, not by the action of factors external to it. This feature naturally qualifies Keynes's theory for the rôle of "rationalizer" of anticapitalist volition.

(4) Quite consciously, Keynes refused to go beyond the factors that are the immediate determinants of income (and employment). He himself recognized freely that these immediate determinants which may "sometimes" be regarded as "ultimate independent variables... would be capable of being subjected to further analysis, and are not, so to speak, our ultimate atomic independent elements" (p.247). This turn of phrase seems to suggest no more than that economic aggregates derive their meaning from the component "atoms." But there is more to it than this. We can, of course, greatly simplify our picture of the world and arrive at very simple propositions if we are content with arguments of the form: given A, B, C..., then D will depend upon E. If A, B, C... are things external to the field under investigation, there is no more to be said. If, however, they are part of the phenomena to be explained, then the resulting propositions about what determines what may easily be made undeniable and acquire the semblance of novelty without meaning very much. This is what Professor Leontief has called implicit theorizing.²⁹ But for Keynes, as for Ricardo,³⁰ arguments of this type were but emphasizing devices: they served to single out and by so doing to emphasize a particular relation. Ricardo did not say: "Under present English conditions, as I see them, free trade in foodstuffs and raw materials will, everything considered, tend to raise the rate of profit." Instead he said: "The rate of profit depends upon the price of wheat."

(5) Forceful emphasis on a small number of points that seemed to Keynes to be both important and inadequately appreciated being the keynote of the General Theory, we find other emphasizing devices besides the one just mentioned. Two we have noticed already.³¹ Another is what critics are apt to call overstatements - overstatements, moreover, which cannot be reduced to the defensible level, because results depend precisely upon the excess. But it must be remembered not only that, from Keynes's standpoint, these overstatements were little more than means to abstract from non-essentials but also that part of the blame for them lies at our own door; we, as a body, simply will not listen unless a point be hammered in with one-sided energy. Granting, for the sake of argument, that the points in question were actually important enough to merit being hammered in, and remembering that the gems of unqualified overstatement do not occur in the General Theory itself but in the writings of some of Keynes's followers, we shall appreciate this method of flavouring what I have described as the sauce.

Three examples must suffice. First, every economist knows — if he did not he could not help learning it from conversation with businessmen — that any sufficiently general change in money wage rates will influence prices in the same direction. Nevertheless, it was not the practice of economists to take account of this in the theory of wages. Second, every economist should have known that the Turgot-Smith-J.S. Mill theory of the saving and investment mechanism was inadequate and that, in particular, saving and investment decisions were linked together too closely. Yet, had Keynes presented a properly qualified statement of their true relation, would he have elicited more from us than a mumble to the effect: "Yes... that's so... of some importance in certain cyclical situations... What of it?" Third, let any reader look up pages 165 and 166 of the General Theory — the first two pages of Chapter 13, on the "General Theory of Interest." What will he find? He will find that the theory, according to which the investment for savings and the supply of savings that is governed by time-preference ("which I have called the propensity to consume") is equated by the rate of interest "breaks down" because "it is impossible to deduce the rate of interest merely from a knowledge of these two factors." Why is this impossible? Because the decision to save does not necessarily imply a decision to invest: we must also take account of the possibility that the latter does not follow or not follow promptly. I will lay any odds that this perfectly reasonable improvement in the tenor of current teaching would not have greatly impressed us had he left the matter at this. It had to be liquidity preference to the fore — and interest nothing but the reward for parting with money (which cannot be so on the showing of his own text) - and so on in a well-known sequence in order to make us sit up. And we were made to sit up to some purpose. For many more of us will now listen to the proposition that interest is a purely monetary phenomenon than were ready to listen 35 years ago.

But there is one word in the book that cannot be defended on these lines — the word "general." Those emphasizing devices — even if quite unexceptionable in other respects — cannot do more than individuate very special cases. Keynesians may hold that these special cases are the actual ones of our age. They cannot hold more than that.32

(6) It seems evident that Keynes wished to secure his major results without appeal to the element of rigidity, just as he spurned the aid he might have derived from imperfections of competition.³³ There were points, however, at which he was unable to do so, especially the point at which the rate of interest has to become rigid in the downward direction because the elasticity of the liquiditypreference demand for money becomes infinite there. And at other points, rigidities stand in reserve, to be appealed to in case the front-line argument fails to convince. It is, of course, always possible to show that the economic system will cease to work if a sufficient number of its adaptive organs are paralyzed. Keynesians like this fire escape no more than do other theorists. Nevertheless,

it is not without importance. The classical example is equilibrium underemployment.34

(7) I must, finally, advert to Keynes's brilliance in the forging of individual tools of analysis. Look, for instance, at the skillful use made of Kahn's multiplier or at the felicitous creation of the concept of user cost which is so helpful in defining his concept of income and may well be recorded as a novelty of some importance. What I admire most in these and other conceptual arrangements of his is their adequacy: they fit his purpose as a well-tailored coat fits the customer's body. Of course, precisely because of this, they possess but limited usefulness irrespective of Keynes's particular aims. A fruit knife is an excellent instrument for peeling a pear. He who uses it in order to attack a steak has only himself to blame for unsatisfactory results.

VIII

The success of the General Theory was instantaneous and, as we know, sustained. Unfavorable reviews, of which there were many, only helped. A Keynesian school formed itself, not a school in that loose sense in which some historians of economics speak of a French, German, Italian school, but a genuine one which is a sociological entity, namely, a group that professes allegiance to One Master and One Doctrine, and has its inner circle, its propagandists, its watchwords, its esoteric and its popular doctrine. Nor is this all. Beyond the pale of orthodox Keynesianism there is a broad fringe of sympathizers and beyond this again are the many who have absorbed, in one form or another, readily or grudgingly, some of the spirit or some individual items of Keynesian analysis. There are but two analogous cases in the whole history of economics — the Physiocrats and the Marxists.

This is in itself a great achievement that claims admiring recognition from friends and foes alike and, in particular, from every teacher who experiences the enlivening influence in his classes. There cannot be any doubt, unfortunately, that in economics such enthusiasm — and correspondingly strong aversions never flare up unless the cold steel of analysis derives a temperature not naturally its own from the real or putative political implications of the analyst's message. Let us therefore cast a glance at the ideological bearings of the book. Most orthodox Kevnesians are "radicals" in one sense or another. The man who wrote the essay on the Villiers Connection was not a radical in any ordinary sense of the word. What is there in his book to please them? In an excellent article in this Review, Professor Wright³⁵ has gone so far as to say that "a conservative candidate could conduct a political campaign largely on quotations from the General Theory." True, but true only if this candidate knows how to use asides and qualifications. Keynes was no doubt too able an advocate ever to deny the obvious. To some extent, though probably to a small extent only, his success is precisely due to the fact that even in his boldest rushes he never left his flanks quite unguarded — as unwary critics of either his policies or his theories are apt to discover to their cost. 36 Disciples do not look at qualifications. They see one thing only - an indictment of private thrift and the implications this indictment carries with respect to the managed economy and inequality of incomes.

In order to appreciate what this means, it is necessary to recall that, as a result of a long doctrinal development, saving had come to be regarded as the last pillar of the bourgeois argument. In fact, old Adam Smith had already disposed pretty much of every other; if we analyze his argument closely - I am speaking, of course, only of the ideological aspects of his system — it amounts to allaround vituperation directed against "slothful" landlords and grasping merchants or "masters" plus the famous eulogy of parsimony. And this remains the keynote of most non-Marxist economic ideology until Keynes. Marshall and Pigou were in this boat. They, especially the latter, took it for granted that inequality, or the existing degree of inequality, was "undesirable." But they stopped short of attack upon the pillar.

Many of the men who entered the field of teaching or research in the twenties and thirties had renounced allegiance to the bourgeois scheme of life, the bourgeois scheme of values. Many of them sneered at the profit motive and at the element of personal performance in the capitalist process. But so far as they did not embrace straight socialism, they still had to pay respect to saving under penalty of losing caste in their own eyes and ranging themselves with what Keynes so tellingly called the economist's "underworld." But Keynes broke their fetters: here, at last, was theoretical doctrine that not only obliterated the personal element and was, if not mechanistic itself, at least mechanizable, but also smashed the pillar into dust; a doctrine that may not actually say but can easily be made to say both that "who tries to save destroys real capital" and that, via saving, "the unequal distribution of income is the ultimate cause of unemployment."37 This is what the Keynesian Revolution amounts to. Thus defined, the phrase is not inappropriate. And this, and only this, explains and, to some extent, justifies Keynes's change of attitude toward Marshall which is neither understandable nor justifiable upon any scientific ground.

But though this attractive wrapper made Keynes's gift to scientific economics more acceptable to many, it must not divert attention from the gift itself. Before the appearance of the General Theory, economics had been growing increasingly complex and increasingly incapable of giving straightforward answers to straightforward questions. The General Theory seemed to reduce it once more to simplicity, and to enable the economist once more to give simple advice that everybody could understand. But, exactly as in the case of Ricardian economics, there was enough to attract, to inspire even, the sophisticated. The same system that linked up so well with the notions of the untutored mind proved satisfactory to the best brains of the rising generation of theorists. Some of them felt - still feel for all I know - that all other work in

"theory" should be scrapped. All of them paid homage to the man who had given them a well-defined model to handle, to criticize, and to improve — to the man whose work symbolizes at least, even though it may not embody, what they wanted to see done.

And even those who had found their bearings before, and on whom the General Theory did not impinge in their formative years, experienced the salutary effects of a fresh breeze. As a prominent American economist put it in a letter to me: "It (the General Theory) did, and does, have something which supplements what our thinking and methods of analysis would otherwise have been. It does not make us Keynesians, it makes us better economists." Whether we agree or not, this expresses the essential point about Keynes's achievement extremely well. In particular, it explains why hostile criticism, even if successful in its attack upon individual assumptions or propositions, is yet powerless to inflict fatal injury upon the structure as a whole. As with Marx, it is possible to admire Keynes even though one may consider his social vision to be wrong and every one of his propositions to be misleading.

I am not going to grade the General Theory as if it were a student's examination book. Moreover, I do not believe in grading economists — the men whose names one might think of for comparison are too different, too incommensurable. Whatever happens to the doctrine, the memory of the man will live — outlive both Keynesianism and the reaction to it.

At this I will leave it. Everyone knows the stupendous fight the valiant warrior put up for the work that was to be his last. 38 Everyone knows that during the war he entered the Treasury again (1940) and that his influence grew, along with that of Churchill, until nobody thought of challenging it. Everyone knows of the honor that has been conferred upon the House of Lords. And, of course, of the Keynes Plan, Bretton Woods, and the English loan. But these things will have to engage some scholarly biographer who has all the materials at his disposal.

Notes

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1. The essay, a review of W.I.J. Gun, Studies in Hereditary Ability, was published in The Nation and Athenaeum, March 27, 1926, and has been reprinted in the volume Essays in Biography, 1933. This volume sheds more light on Keynes the man and Keynes the scholar than does any other publication of his. I shall accordingly refer to it more than once.

2. Scope and Method of Political Economy (1891). The well-earned success of this admirable book is attested by the fact that a reprint of its fourth edition (1917) was called for as late as 1930; in fact, so well has it kept its own amidst the surf and breakers of half a century's controversies about its problems that even now students of methodology can hardly do better than choose it for guide.

- 3. Eton always meant much to him. Few of the honors of which he was the recipient later on pleased him so much as did his election, by the masters, as their representative on Eton's governing board.
- 4. The Campbell-Bannerman victory was won and a parliamentary Labor Party emerged in January, 1906.

- 5. My own acquaintance with Keynes, productive of a totally different impression, dates only from 1927.
- · 6. Edgeworth served once more, as joint editor, 1918-1925. He was succeeded by D.H. Macgregor, who served, 1925-1934, to be in turn succeeded by Mr. E.A.G. Robinson (who had been appointed assistant editor in 1933).
- 7. Once he patiently explained to a foreign contributor that, while it is permissible to abbreviate exempli gratia into e.g., it is not permissible to abbreviate "for instance" into f. i. - and would the author sanction the alteration?
- 8. In 1910-11 he gave lectures on Indian Finance at the London School of Economics. See F.A. Hayek, "The London School of Economics, 1895-1945," Economica (Feb., 1946), p. 17.
- 9. See pp.26-50, on the Council of Four, republished, with an important addendum, the Fragment on Lloyd George, in the Essays in Biography. It is painful to report that, at the time, some opponents of Kevnes's views, in full retreat before his victorious logic, seem to have resorted to sneers about his presentation of certain facts and his interpretation of motive, neither of which, so they averred, he was in a position to judge. Since this indictment of Keynes's veracity has been repeated recently in a causerie published in an American magazine, it is first of all necessary to ask the reader to satisfy himself that not a single result of Keynes's analysis and not a single recommendation of his depends on the correctness or incorrectness of the picture he drew of the motives and attitudes of Clemenceau, Wilson, and Lloyd George. But, secondly, since it is part of the purpose of this memoir to delineate a character, it is further necessary to prove that there is absolutely no foundation for the aspersion that Keynes indulged in a flight of "poetic fantasy" and that he pretended to an intimate knowledge of "arcana" that cannot have been known to him which, at best, would convict him of petty vanity and, at worst, of more than that. But the proof in question is not difficult to supply. If the reader will refer to that masterly sketch, as I hope he will, he is bound to find that Keynes claimed no intimacy with those three men and personal acquaintance only with Lloyd George. He said nothing about the private meetings of the four (the fourth was Orlando), but merely described scenes at the regular meetings of the Council of Four, which, along with all other leading experts, he must have normally attended in his official capacity. Moreover, his presentation of the personal aspects of the steps on the road that led to the disastrous result is amply supported by independent evidence: his brilliant story is nothing but a reasonable interpretation of a course of events that is common knowledge. Finally, critics had better bear in mind that this interpretation is distinctly generous and perfectly free from traces of any resentment, however justifiable, that Keynes may have felt.
- 10. These are: his article on population and the ensuing controversy with Sir William Beveridge (Econ. Jour., 1923); his pamphlet, The End of Laissez-Faire (1926); and his article on the "German Transfer Problem" in the Econ. Jour. (March, 1929), with subsequent replies to the criticism of Ohlin and Rueff. The first attempts to conjur Malthus's ghost - to defend (at the threshold of the period of unsalable masses of food and raw materials!) the thesis that, since somewhere about 1906, nature had begun to respond less generously to human effort and that overpopulation was the great problem, or one of the great problems of our time: perhaps the least felicitous of all his efforts and indicative of an element of recklessness in his makeup which those who loved him best cannot entirely deny. All that needs to be said about The End of Laissez-Faire is that we must not expect to find in this piece of work what the title suggests. It was not at all what the Webbs wrote in that book of theirs that invites comparison with Keynes's. The article on German reparations reveals another side of his character; it was evidently dictated by the most generous motives and by unerring political wisdom; but it was not good theory and Ohlin and Rueff found it easy to deal with it. It is difficult to understand how Keynes can have been blind to the weak spots in his argument. But, in the service of a cause he believed in, he would sometimes, in noble haste. overlook defects in the wood from which he made his arrows. Perusal of the collection entitled Essays in Persuasion (1931), is perhaps the best method of studying the quality of his reasoning in the not-quite-professional part of his work.
- 11. In The New Statesman and Nation, October 3, 1931, republished in the Essays in Biography. To this essay, the most warm-hearted thing he ever wrote, is appended an anthology of gleanings from Ramsey's notes. These express Ramsey's views, of course, and not Keynes's, but, for an occasion like this, nobody would choose passages that do not strike a sympathetic note. Thus, Ramsev's sayings become indicative of Keynes's philosophy.
- 12. The most obvious example for this is his most ambitious venture in research, the Treatise on Money, which is a shell of several pieces of powerful but unfinished work, very imperfectly put

13. The literature of philosophy and economics attracted him most. In this pursuit Professor Piero Sraffa became to him a much-appreciated ally. The best example I can offer of results is the edition of Hume's abstract of his Treatise on Human Nature "reprinted with an Introduction by J.M. Keynes and P. Sraffa," 1938. The Introduction is a curious monument of philological ardor.

14. The acquaintance, a most disorderly person, does not keep letters. The exact wording of Kevnes's note can therefore not be verified. But I am positive that it contained a single brief sentence and that the import of this sentence was as stated. It must have been about ten or fifteen vears ago, perhaps more. - In his last years, those artistic activities and tastes led to his being elected trustee of the National Gallery and Chairman of the Council for the Encouragement of Music and the Arts. More work!

15. It should surprise no one that he was eventually (1942) elected director of the Bank of England.

16. This also explains what his opponents called his inconsistency.

17. See, e.g., the highly characteristic passages on p.10, and also the description of the "investment system" on p.8, which anticipates some of the very inadequacies of the analysis of the General Theory. Even then, and indeed from first to last, Keynes displayed a curious reluctance to recognize a very simple and obvious fact and to express it by the no less simple and obvious phrase.

that typically industry is financed by banks.

18. E.W. Kemmerer, Money and Credit Instruments (1907), p.20. But on p.193 of the Tract. Kevnes commits himself to the untenable statement that "the internal price level is mainly determined by the amount of credit created by the banks" and from this he never departed. To the end, this credit remained for him an independent variable, given to the economic process, though determined, not by gold production as it was of old but either by the banks or by the "monetary authority" (Central Bank or Government). This, however - considering quantity of money as "given" - is one of the characteristic features of the quantity theory in the strict sense. Hence my statement in the text that he never abandoned the quantity theory as completely as he thought he did.

19. A semi-apologetic passage in the Preface of the Treatise shows that he was not aware of the

fact that he was offering half-baked bread.

20. Gunnar Myrdal, Monetary Equilibrium (English translation, by Bryce and Stolper [1939], of a German version of the Swedish original that appeared in the Ekonomisk Tidskrift in 1931), p.8. Myrdal's protest was not, of course, made on his own behalf but on behalf of Wicksell and the Wicksellian group. But a similar protest would have been in order on behalf of Böhm-Bawerk and his followers, especially of Mises and Hayek. The latter's Geldtheorie und Konjunkturtheorie had been published, it is true, only in 1929. But Böhm-Bawerk's work was available in English, and Taussig's Wages and Capital dates from 1896. Nevertheless, Keynes wrote the capital theory of Book VI exactly as if they had never lived. But there was no obliquity in this. He simply did not know. Proof of his good faith is the ample credit he gave to all authors he did know, Pigou and Robertson among them.

21. This, of course, involves injustice to the work as a whole, and in particular to the first two books: the conventional but nonetheless brilliant introduction (Nature of Money, Book I) and the almost independent treatise on price levels (Value of Money, Book II) which is full of suggestive ideas. It must be remembered — and this is really the most fundamental difference between the Treatise and the General Theory — that the work professes to be an analysis of the dynamics of price levels, "of the way in which the fluctuations of the price level actually come to pass" (Vol. I, p.152), though in reality it is much more than this.

22. Alvin H. Hansen, "A Fundamental Error in Keynes' Treatise on Money," this Review, 1930; and Hansen and Tout, "Investment and Saving in Business Cycle Theory," Econometrica,

1933.

23. F.A. von Hayek, "Reflections on the Pure Theory of Money of Mr. Keynes," I and II, Economica, 1931 and 1932. Hayek went so far as to speak of an "enormous advance." Nevertheless Keynes replied not without irritation. As he himself remarked on another occasion, authors are difficult to please.

- 24. Mr. Hawtrey's relation to the book can never have been any other than that of an undestanding and, up to a point, sympathetic critic. He never was, of course, a Keynesian. From the Tract to the Treatise, Keynes was a Hawtreyan, Mr. Harrod may have been moving independently toward a goal not far from that of Keynes, though he unselfishly joined the latter's standard after it had been raised. Justice imposes this remark. For that eminent economist is in some danger of losing the place in the history of economics that is his by right, both in respect to Keynesianism and in respect to Imperfect Competition. Not less do I feel bound to advert to Mrs. Robinson's claims. It is highly revelatory of the attitude of the academic mind to women that she was excluded from the above-mentioned seminar (at least she was not invited on the one occasion when I addressed it). But she was in the midst of things. Proofs of this are her "Parable on Saving and Investment" (Economica, February 1933), an article which was a most skillfully fought rear-guard action covering retreat from the Treatise; and, still more significant of her role in the evolution of the General Theory, her "Theory of Money and the Analysis of Output," published as early as October, 1933. in the Review of Economic Studies.
- 25. Distinctive terminology helps to drive home the points an author wishes to make and to focus his readers' attention. This (though nothing else) justifies the re-naming of Irving Fisher's marginal rate of return over cost — the priority of which Keynes fully recognized — and also the use of the phrase, liquidity preference, instead of the usual one, hoarding. Consumption function is certainly a better shell for Keynes's meaning than the Malthusian phrase. Effective Demand, which he also used, for nothing but confusion can come from using the concepts of Demand and Supply outside of the domain (partial analysis) in which they carry rigorously definable meaning. It is not without interest to note that Keynes called his assumptions about the forms of the consumption and liquidity preference functions Psychological Laws. This was of course, another emphasizing device, But no tenable meaning can be attached to it, not even so much meaning as attaches to the "law of satiable wants." In this, as in some other respects, Keynes was distinctly old-fashioned.
- It is really an injustice to Keynes's achievement to reduce it to the bare bones of its logical. structure and then to reason on these bones as if they were all. Nevertheless, great interest attaches to the attempts that have been made to cast his system into exact form. I want in particular to mention; W.B. Reddaway's review in the Economic Record, 1936; R.F. Harrod, "Mr. Keynes and Traditional Theory," Econometrica, January, 1937; J.E. Meade, "A Simplified Model of Mr. Keynes' System," Review of Economic Studies, February, 1937; J.R. Hicks, "Mr. Keynes and the 'Classics'," Econometrica, April, 1937; O. Lange, "The Rate of Interest and the Optimum Propensity to Consume," Economica, February, 1938; P.A. Samuelson, "The Stability of Equilibrium," Econometrica, April, 1941 (with dynamical reformulation); and A. Smithies, "Process Analysis and Equilibrium Analysis," Econometrica, January, 1942 (also a study in the dynamics of the Keynesian schema). In the hands of writers less in sympathy with the spirit of Keynesian economics, some of the results presented in these papers might have been turned into serious criticisms. This is still more true of F. Modigliani, "Liquidity Preference and the Theory of Interest and of Money." Econometrica, January, 1944.

27. The quickest way to learn how far aggregative analysis had progressed before the publication of the General Theory is to read Tinbergen's survey article in Econometrica, July, 1935.

28. Strictly, some change in the quantity of equipment must be admitted, but it is conceived of as so small, at any given point of time, that its effect upon the existing industrial structure and its output can be neglected.

29. Cf. his article under that title in the Quarterly Journal of Economics, Vol. 51, pp. 337-51.

30. The intellectual affinity of Keynes with Ricardo merits notice. Their methods of reasoning were closely similar, a fact that has been obscured by Keynes's admiration of Malthus's anti-saving attitude and by his consequent dislike of Ricardo's teaching.

31. See above, n.25.

32. This has first been pointed out by O. Lange, op. cit., who also paid due respect to the only truly general theory ever written - the theory of Leon Walras. He neatly showed that the latter covers Keynes's as a special case.

33. The latter factor was, however, inserted by Mr. Harrod.

34. I have sometimes wondered why Keynes attached so much importance to proving that there may — and under his assumptions generally will — be less than full employment in perfect equilibrium of perfect competition. For there is such an ample supply of verifiable explanatory factors to account for the actual unemployment we observe at any time that only the theorist's ambition can induce us to wish for more. The question of the presence of involuntary unemployment

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in perfect equilibrium of perfect competition, a state that even the straw man whom Keynes called "classical economist" never believed in as a reality, is no doubt of great theoretical interest. But practically, Keynes should have fared equally well with the unemployment that may exist in a permanent state of disequilibrium. As it is, he clearly failed to prove his case. But inflexibility of wages in the downward direction stands ready to lend its aid. The theoretical question itself is the subject of a discussion that suffers from the failure of participants to distinguish between the various theoretical issues involved. But we cannot enter into this.

35. D.McC. Wright, "The Future of Keynesian Economics," Am. Econ. Rev., Vol. XXXV, No. 3 (June, 1945), p.287. This article, in spite of some differences of opinion, usefully complements my own in many points into which considerations of space forbid me to enter.

36. This is why there is such ample room for that turn of phrase that occurs so often in the Keynesian literature: "Keynes did not really say this" or "Keynes did not really deny that." In the General Theory most of the explicit qualifications occur in chapters 18 and 19. But the only possible reference to all the implicit ones is passim. The logic of the classical system is not really impugned (p.278). Even Say's law (in the sense defined on p.26) is not completely thrown out; even the existence of a mechanism that tends to equilibrate saving and investment decisions — and the rôle of interest rates in this mechanism — and even the possibility that a reduction of money wages may stimulate output is not absolutely denied; though, to be sure, only in application to very special cases, the validity of the first and the existence of the other two are occasionally recognized. Critics are therefore in constant danger of being convicted of "gross misrepresentation" exactly as unwary critics of Malthus's first Essay invariably run into a volley of quotations from the second edition — in which, in fact, Malthus went far toward explaining away Malthusianism. But it is impossible to go into all this here. In the article quoted, Professor Wright offers instructive examples.

37. And, after all, a glance at pp. 372-73 and 376 of the General Theory will convince anyone that Keynes actually came pretty near to authorizing both statements. One must be as punctiliously conscientious as is Professor Wright in order to say that he did not actually do so.

38. His last great work, that is. He wrote many minor pieces almost to his dying day.

John Maynard Keynes*

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Lord Keynes, who died at the age of sixty-two on April 21, 1946, was unquestionably the most famous and controversial of contemporary economists. Moreover, like the great figures of the classical school - Adam Smith, David Ricardo, and John Stuart Mill1 — he was no narrow specialist working in the seclusion of an academic ivory tower. Both as critic and as participant, he played a very important and certainly a unique role in the public life of Britain in the period of the two world wars; as a patron of the arts, he was a power in the cultural life of his country; as head of a great insurance company and as Bursar of King's College, Cambridge, he proved that the economic theorist can be a highly successful businessman: while his non-economic writings range from the standard (literary as opposed to mathematical) Treatise on Probability to the incisive Essays in Biography. Keynes was, in short, one of the most brilliant and versatile geniuses of our time; and one can be sure that his place in history - not only doctrinal economic history - will be a subject of discussion and controversy for an indefinite period to come. It would be presumptuous at this early date to attempt anything in the way of definitive judgments, and in writing this brief communication I am far from entertaining any such intentions. I think it should be possible nevertheless to set out some of the factors in Keynes' work and in his influence on others which will have to be taken into account in any evaluation of the man, present or future.

In order to understand Keynes one must first understand where he stood in relation to other economists and schools of economic thought: for, as we shall see, it was what might be called an accident of location which accounts for much of the influence as well as for many of the shortcomings of his work. Modern economics — the economics of industrial capitalism and of the world market — had its origins in the later decades of the seventeenth century. During the next hundred and fifty years England was the home of the most important advances on both the industrial and the theoretical fronts; and by the time of Ricardo (1772-1823), English political economy enjoyed a degree of authority and prestige throughout the western world which has never been equalled before or

^{*}Source: Science and Society, Vol. 10, Autumn 1946, pp.398-405.