Schumpeter and Keynes Dissimilar Twin "Revolutionists"

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I Introduction

Joseph Schumpeter and John Maynard Keynes were "twins" in important respects, including their each attempting to "revolutionise" economics. But the nature of the evolution each sought was very different, and this accounts for some dissimilarities in their economics. Schumpeter and Keynes were also highly dissimilar in personality, character, and ideologies, and this made for other dissimilarities in their economics. This paper focuses on the dissimilarities in their economics and seeks to explain why they appeared.

II Their "Twinship"

They were both born in 1883, and died in their sixties while still professionally active. Like Karl Marx, who died the same year they were born, both of them dissented from much of the prevailing economics of their times. They were also, in my judgment, the two most "revolutionary" economists of the twentieth century, as Marx was of the nineteenth. The economics of Schumpeter and Keynes were similar in important respects. Both were primarily interested in macroeconomics rather than microeconomics, and in "dynamics" - the way an economy moves through time - rather than the "microstatics" that dominated late 19th and early twentieth century economic theory.

In certain parts of macroeconomics - what I call "Macrofinance" - their apparent twinship was especially close. Macrofinance concerns Money, Credit, Interest Rates, and the relations between saving and expenditure at the macro level. Each, in his own way, was a notable pioneer in Macrofinance. Both preferred "monetary analysis" over the "real" analysis of traditional economic theory. An important objective of each was to get money onto what Schumpeter called the "groundfloor" of economics, and both worked a number of years trying to get it there.[1] Both recognised that "finance" was necessary to bring about an expansion of aggregate spending in Capitalism, and they agreed that credit, not money per se, was the primary variable that brings about changes in aggregate expenditure.

They shared notable "economic heresies" in Macrofinance. Both contended that the rate of interest is a "monetary" rather than a "real" economic phenomenon. They both saw interest as simply the money payment on a money debt, not capital's "marginal productivity". Schumpeter clearly, and Keynes though less clearly, held that Capital, like Interest, is essentially financial. Finally, both of them disputed, although each in a different way, the Classical proposition that saving is the major source of funds for investment and the key to economic progress. In view of these similarities, one might expect their economics - especially in Macrofinance - to be quite similar. But by the time of Keynes' General Theory, Schumpeter's and Keynes' economics differed radically.

III Their Differences in Economics

These dissimilarities fall into several groups. The first, and probably the most influential, were basic differences regarding the nature and purposes of economics and the proper method to pursue it. Second were the dissimilarities that followed from the divergent character of their attempted "revolutions". The third group were anomalous differences in Macrofinance, where both their revolutionary aims and general perspectives were so parallel. After examining these dissimilarities, we will attempt to explain why they came about. We shall find that some of them reflected differences in their cultural backgrounds and epistimologies. Others resulted simply from their dissimilar revolutionary aims. Other dissimilarities, including the differences in their revolutionary aims themselves, reflected mainly dissimilarities in their personalities and their ideologies.

1 The Nature and Purposes of Economics

Schumpeter and Keynes held very different views regarding the nature and purposes of economics. In philosophy of science, Schumpeter would be classified as a Positivist; Keynes as a Normative Pragmatist. To Schumpeter, economics, like the natural sciences, should be strictly a study of "what is," not what could be, much less what should be. Economics, like the natural sciences, he held, should be "value-free". He severely criticised Keynes for building his economics around economic problems and policies. In Schumpeter's view, this inevitably undermined its scientific validity. Keynes instead regarded economics as a "Moral Science", very different from the natural sciences, and far from "value-free". In his view, economics is closely related to philosophy, ethics and political theory and action.[2] Its primary purpose is "fruit-bearing" rather than "light-giving". Like a physician, Keynes diagnosed and prescribed for what he perceived to be the most serious economic ills of his times.

2 Economic Method

The differences in their economic methods mirror their differing views of the nature and purposes of economics. Schumpeter's views on method were those of the natural scientist. He extolled the use of mathematics; he was indeed a co-founder of the Econometric Society, devoted to using sophisticated mathematical and statistical methods in the derivation of economic theory as well as in testing it empirically. In his general views on economic method, Schumpeter was unusually tolerant. He took a neutral position in the methodstreit that raged on the Continent in his early years between the "abstract" and the "historical" methods of economics. All scientific methods, together with what he called "economic analysis", had, he held, important roles to play in economics (Machlup 1951).

Keynes had little confidence in the use of the methods of natural sciences in economics. He did not believe that mathematics was suitable for economic theorising. He carried on an extended debate with, Jan Tinbergen, a leading econometrician, regarding the analysis of business cycles by econometric modelling.

In the methods that Schumpeter and Keynes actually used in their own economic work, there was almost complete polarity. Schumpeter's theoretical work was dominated by his "visionary" approach. He held that all important economic theories start with an economist's "pre-analytic cognitive vision" of the economic system being examined. The economist then employs "economic analysis" to build a "model" that articulates this vision. The model is then tested empirically, by statistical and historical methods. This testing, be it noted, plays no part in either the economist's "vision" or the model-building.[3]

Keynes, in contrast, followed an essentially inductive method, but with a strong element of intuition. His first theoretical work, begun well before he turned to economics, was his *Treatise on Probability*, which dealt not with economics but with inductive logic under conditions of uncertainty. The theory of inquiry that Keynes set forth in this work underlaid his major works in economics. (Carabelli, 1988). Keynes remained essentially an "intuitive inductivist" all his life. In *The General Theory* he did, however, criticise the internal logic of the "Classical" economics as well as its lack of conformance with empirical evidence (Carabelli 1991). Keynes saw an economist's "vision" coming towards the end of inquiry rather than, as with Schumpeter, at its beginning. Keynes' method could be called "Well-informed intuition," were this not too simple a term for the method he actually followed. He went through a great deal of "intellectual experimentation" in preparing his major theoretical works. In the prefaces to the *Treatise on Money* and *The General Theory* he spoke of the long processes of search and discovery through which he had struggled to reach his ideas.

An important feature of Keynes' economics - it could perhaps be called part of his method - was his readiness to reconsider his positions. One of his biographers (Hession, 115) quotes an observer: "[Keynes] is a very clever man and has the talent of the good learner. His opinions are in a perpetual state of progress, and therefore of apparent flux". Once, when criticised for so frequently changing his mind, Keynes is reported to have replied, "When I find new evidence, I change my mind. What do you do?".

A standard principle of most economic method is to examine conditions of "equilibrium". There was a sharp dissimilarity in the use that Schumpeter and Keynes made of this principle. Leon Walras' "General Equilibrium" was a lodestone in Schumpeter's theorising. It characterised the "circular flow" he used to launch his theory of economic development. He used the principle also in his analysis of the business cycle. During the cycle, Schumpeter held, the economy is always tending strongly towards a new position of general equilibrium. The influence of general equilibrium upon Schumpeter's work is also evident in his cyclical handling of money in his *Business Cycles*, as well as in the temporal intertwining he postulated among the three types of business cycle he identified. General equilibrium underlay Schumpeter's macrodynamic theory even though he saw Capitalism as a process of "creative destruction".

Keynes, like his mentor, Alfred Marshall, did not think well of the general equilibrium principle. (Marshall had called it an "intellectual toy"). Keynes used instead Marshall's "partial equilibrium" method. An important feature of Marshallian economics was to distinguish between "time periods," within which different types and degrees of equilibrium could occur -- "normal" ("long-run") equilibrium, "short-period" equilibrium, and "market" equilibrium. In his *Treatise on Money* Keynes applied Marshall's "normal equilibrium," along with the Marshallian concept of "normal profits" to macroeconomic analysis. But in *The General Theory* he abandoned the notion of "normal" equilibrium entirely. Keynes built his theory of employment explicitly on Marshall's "short period," but the notion of anything beyond merely "market" equilibrium had disappeared.

The dissimilarities between Schumpeter's and Keynes' conceptions of the discipline of economics and their methodologies were largely independent of their sharply differing revolutionary aims. Let us look next at these aims.

3 Dissimilar Revolutionary Aims

Schumpeter and Keynes were seeking very different types of revolution. There were two principal differences. Within economics itself, Schumpeter was seeking to complement what he considered a satisfactory "Walrasian" economic theory of a "stationary" economy with a "dynamic" theory of a developing economy. His object was to create an evolutionary theory of the secular development of Capitalism. Keynes had a much less ambitious aim. He wished to revolutionise that part of economic theory which deals with the relatively short-run behaviour of aggregate expenditure, income and employment. He had no more interest in an evolutionary economics than he had in "static" microeconomics. He was indifferent to both.

Schumpeter had also another and a wider aim. This was to integrate economic theory into a general theory of social change. Influenced by Marx[4] and by the sociologist Max Weber, Schumpeter's ultimate aim was to create a dynamic "general social science", of which economics would be part (Shionoya). He published several important works involving Sociology: *Social Classes* (1919), *Imperialism* (1927), and *Capitalism, Socialism and Democracy* (1942). The memorial volume Harvard published in his honour (Harris, 1951), was quite properly entitled *Schumpeter: Social Scientist*. Keynes' intellectual interests also went well beyond economics. He was deeply engaged in ethics, epistemology, and political theory before he turned to economics. But he had no interest in integrating economics with the other "moral sciences". After he became a professional economist his work dealt almost solely with economics and its applications.

IV Divergent Aims Make Dissimilar Economics

Let us look at the differences in their economics that stemmed quite directly from the dissimilarity of their revolutionary aims.

1 Time Perspectives

The time perspectives of Schumpeter's and Keynes' theories differed radically. Schumpeter's was an evolutionary "long run," embracing even institutional change. Keynes' time perspective was essentially "short run," as befitted his major revolutionary aim.

2 Expectations and Uncertainty

A very important feature of *The General Theory* was its emphasis on expectations. The analytical vantage-point became primarily ex ante rather than ex post. It is expected quasi-rents that are discounted to get the "marginal efficiency of capital," and "liquidity-preference" reflects expectations (perhaps more properly, anxiety) regarding changing capital values. *The General Theory* also stressed the uncertainty of expectations, particularly of the "long-term" expectations upon which investment expenditure is based. The principle of uncertainty (as distinct from mere "risk") is fundamental to the economics of *The General Theory*. One of Keynes' biographers, Skidelsky, even writes that *The General Theory* turned economics from its traditional focus on scarcity to focus on uncertainty. Indeed, Keynes put so much emphasis on expectations and uncertainty in *The General Theory* that his "equilibrium" does not have nearly the same significance it had with Marshall, much less with Schumpeter.

Expectations and uncertainty are of course implicit in Schumpeter's economics also. Schumpeter saw the economy as constantly changing endogenously as a result of innovation. Innovation is at best an uncertain business, and the innovator has hopeful expectations of profit. But Schumpeter did not incorporate expectations and uncertainty into his theoretical model, which instead took the form of rhythmic departures from and return towards conditions of general equilibrium. Schumpeter's theory, being an "evolutionary long-run" one, really had no important role for expectations and uncertainty![5]

V Dissimilarities in Macrofinance

We move on to Macrofinance, where, as noted, both Schumpeter's and Keynes' aims and general perspectives were so parallel. Surprisingly, Keynes' views in Macrofinance - on money, credit, interest rates, and saving - diverged sharply from Schumpeter's. Let us look closely at their ideas in these fields.[6]

1 Monetary Theory

Nowhere does the effect of their dissimilar methods show up more clearly than in their treatment of money. Keynes changed his monetary theory twice as his work progressed; Schumpeter never appreciably altered his initial monetary ideas.[7] Schumpeter saw money as a "ticket," or "claim" which circulates through the economy much as blood circulates through an organism. Money's prime function is to act as the means of payment. He also recognised money as a "bookkeeping mechanism," but this, like money's other functions, he considered of relatively little importance.[8] Although Schumpeter was strongly "anti-monetarist" (Earley, 1981a), and rejected what he termed the "quantity theorem," (i.e., that price levels move roughly proportionally to the quantity of money) he employed a transactions-type of quantity equation in his own monetary analysis. On the other hand, he strenuously rejected the "real" balances type of quantity equation, because of its implication that micro-units exercise a "demand" for money. There is, in his view, really no such thing as a "demand for money" in the goods and services markets (*Business Cycles*, pp.546-47). Schumpeter gave no attention to the demand for money in financial markets.

In contrast, Keynes' monetary ideas went through a revolution in the course of his career. Before World War I he vigorously expounded the strict quantity theory. But as he came to specialise in monetary matters he steadily moved away from it, and eventually rejected even a quantity equation as a technique of analysis. In 1939 he scornfully referred to the quantity theory as a "vermiform appendix of the mind" (*Collected Writings*, Vol. 22, p. 84-86). Underlying these shifts in his monetary theory were Keynes' changing views of money's essential function in the modern economy. Before World War I, like Schumpeter, he regarded money's chief function to be that of the means of payment. By his 1924 *Tract on Monetary Reform*, he had come to see money's major function as being the "money-of-account," the unit in which wages and debts are expressed. It was this function, he pointed out, which made the stability in money's value so vital. The radical change in Keynes' monetary theory came with *The General Theory*. He now saw money's chief function to be the provision of "liquidity" in an uncertain economy. Money's real importance, he contended, lies in its influence on the rate of interest. In this way Keynes put money on the groundfloor of a "dynamic economics". Schumpeter, holding fast to his view that money is essentially only a means of payment, could not accept this revolutionary monetary idea.

2 Credit

Both Schumpeter and Keynes attached greater importance to credit than to money per se. Schumpeter expressed credit's importance this way in the *History*: "'Credit' operations of whatever shape or kind do affect the working of the monetary system; more important, they do affect the working of the capitalist engine -- so much so as to become an essential part of it without which the rest cannot be understood at all" (p. 318). Keynes had come to this same position by the time he wrote *The Treatise on Money*. There were nevertheless quite significant differences in their treatment of credit. Schumpeter attached special importance to bank credit. In an article on Capitalism (1946, reprinted in *Essays*) he made bank credit one of Capitalism's three defining characteristics, which marked the beginning of modern Capitalism. In *The Theory of Economic Development*, it is bank credit that breaks through the static "circular flow" to finance the cyclical expansions which constitute economic development.[9]

Regarding the importance of credit, Keynes went even further than Schumpeter. In the *Treatise on Money* he labelled cyclical fluctuations of aggregate spending "The Credit Cycle," and devoted three central chapters to its analysis. In the *Treatise*, Keynes held that in modern Capitalism monetary theory is essentially a theory of the behaviour of credit. Schumpeter did not fully embrace Keynes' "Creditist" views. The explanation lies in the manner in which Schumpeter saw credit as expanding spending. This was by adding a "credit means of payment" to the money supply. He held that borrowing and lending would raise total spending only if these "credit means of payment" "circulated," like money. Although he was sometimes ambiguous, he seemed to regard credit as important mainly because it changed the quantity of money. Elsewhere (1993) I have labelled Schumpeter a "frustrated creditist".

Once Keynes had shaken loose from the quantity theory of money, he saw no essential difference between bank credit and other kinds. All, directly or indirectly, provide a source of funds to finance additional spending by the borrower. Changes in this "loan-expenditure", as Keynes termed it, were in his view the major cause of changes in aggregate spending and employment.[10]

3 The Theory of Interest

The view that Interest is a "monetary" rather than a "real" phenomenon is an important part of both Schumpeter's and Keynes' "revolutions". To both of them interest rates are determined not in commodity markets, as their "Classical" forbears had held, but in financial markets. Characteristically, Schumpeter never changed his initial theory of interest. In his *Theory of Economic Development* he held that in a "stationary" economy, there would be no interest. Interest arises only as a result of innovation, which creates the profits from which interest can be paid. It represents what the entrepreneur pays to the lender (Schumpeter's "Banker"), who supplies the money capital that finances the innovation. Schumpeter held that the banker creates this credit *ad hoc*, without there being either saving or any other source of funds. He did not enquire into the interest rate at which the credit would be supplied. He dealt at some length with rates of interest in *Business Cycles*. Although his basic theory remained unchanged, he introduced an interesting idea regarding interest rate behaviour during the business cycle, which was somewhat akin to Keynes" liquidity-preference theory. This was that the rate of interest is a "coefficient of tension" that expresses "the degree of disequilibrium in the economic system" which develops during the upward phase of the business cycle. (p. 126). But he did not develop this idea into a theory of interest.

In his earlier work, Keynes followed Marshall's neoclassical concept of interest as the net earnings on "real" capital, but in *The General Theory* he rebelled. He now viewed interest, as did Schumpeter, as simply the money payment on a money debt. The rate of interest, he held, is not determined by the rate of earnings on capital but by "liquidity-preference", the preference of wealth holders for money over other forms of wealth. In *The General Theory* he also rejected the Neoclassical theory that interest rates move to equate saving and investment. They are equated, he held, by changes in expenditures and income.[11]

Schumpeter violently rejected Keynes' "liquidity-preference" theory of interest, and scoffed at the very notion of liquidity-preference. He held fast to his theory that interest is explained by the profits of innovation, and also to the traditional view that interest rate movements serve to equate Saving and Investment. We shall examine the reasons for these disputed positions in a later section.

4 Saving

Although Schumpeter and Keynes both rejected the Classical doctrine that saving is the source of funds for investment and the key to economic progress, their other views on saving were sharply opposed. In his earlier work Keynes extolled saving, but by the time of *The General Theory* he had come to distrust it very seriously. Only during wartime scarcity did saving need to be encouraged.[12] Their conflicting views on saving were reflected in their opposed positions regarding the use of Saving-Investment Analysis, the basic analytical technique used by Keynes in both the *Treatise on Money* and *The General Theory*. Schumpeter strongly disapproved of it. He complained (*History* pp. 280 ff.) that it tends strongly to lead to the erroneous view that "over-saving" is responsible for economic instability and underemployment. He pointed to Keynes' *General Theory* as the leading example of this unfortunate tendency.

Part of their dispute about saving was perhaps because Keynes and Schumpeter conceived of "saving" quite differently. To Keynes, saving is simply the failure of economic units to spend all of their current incomes on consumption, thus necessitating offsetting investment spending to maintain total expenditure. In *Business Cycles* Schumpeter called such behaviour "under spending," which he defined as the public's raising its cash balances above "the amount appropriate to the requirements in the previous neighbourhood of equilibrium" (p. 579). He sharply distinguished such "movements in money balances" from true saving. He defined saving as "the earmarking, by a household, of its current receipts with the intention of living on the revenue from the sum assembled for the purpose" (Ibid, p. 75). This intended use of the "saved" funds he considered crucial. Postponement of spending to accumulate funds to spend later is not saving. Even financial provision for one's old age could be considered saving "only if the intention is of living on the revenue from the sum assembled for the purpose" (Idem., note 1).[13]

Schumpeter's and Keynes' disagreements about saving went far beyond its definition, although that may have played a part in Schumpeter's almost contemptuous rejection of Keynes' proposition in *The General Theory* that saving is a positive function of income. By the time of *The General Theory* Keynes had become clearly fearful of too high a propensity to save in contemporary Capitalism. In both *Business Cycles* and *Capitalism, Socialism, and Democracy*, Schumpeter battled against what he termed Keynes' "fallacy of over-saving". He battled it in two ways. First, he argued that saving and investment are closely-coordinated activities. In *Business Cycles* (p. 77) he wrote, "... saving and investment are interdependent and correspective (sic) so as to shape each other". In *Capitalism, Socialism, and Democracy* he wrote: "The decision to invest precedes as a rule, and the act of investment precedes very often, the decision to save". He added: "Unless people see investment opportunities, they will not normally save" (2nd edition, 1947, p. 395). Schumpeter also defended saving by its purported effects on rates of interest. In *Business Cycles* (p. 77) he wrote: "Increased saving means rates of interest lower than they otherwise would be" (Idem). He denied that there could be any technical obstacle to investment equalling saving, "since the rate of interest is free to react at once" (Idem).

VI Personal Differences Make Dissimilar Economics

As seen, the dissimilarities between Schumpeter's and Keynes' economics were wide ranging and profound. Several, as has been noted, are adequately explained by the divergence of their revolutionary aims. Others arose from the dissimilarity in their methodologies. But still others resulted from distinct differences in their personalities and ideologies.

1 Personality Differences

Schumpeter and Keynes were both most remarkable persons; equally remarkable were their personal dissimilarities. Four of these, I think, significantly affected their economics. As his biographers testify, Schumpeter was an extraordinarily ambitious man. This, I think, largely explains the immensity of his attempted revolution. Keynes was also ambitious, of course, but his ambitions were much more sharply focussed.[14] Second, Schumpeter was a personal and professional "loner". Although something of an exhibitionist, he would never deal with his own ideas in his courses at Harvard, even when formally asked to do so by his students.[15] Keynes, on the other hand, revelled in professional discussion. He systematically developed his ideas in his lectures, and held informal sessions in his home where many of his ideas were thrashed out. *The General Theory* was written with the close collaboration of a group of colleagues.[16] It is not surprising that this made for significant differences in their economic theories.

Third, Keynes was an unusually happy person, Schumpeter an unusually unhappy one. Keynes was especially happy after he fell deeply in love with Lydia Lopokova. In his most creative years, from the early 1920s until his death, the immense affection between Lydia and Keynes helped keep him emotionally at peace (Milo Keynes, 1975 and *Lydia and Maynard*). Schumpeter in contrast, was, as his biographers show, a person of deep psychological conflicts. From his middle forties on he was chronically depressed, a driven, frustrated "workaholic" beset by growing obsessions. One cannot read Schumpeter's biographers without feeling that his intense frustrations, chronic depressions, and growing obsessions must have seriously impaired the quality of his later economic work. Fourthly, Schumpeter was a cynical pessimist; Keynes an incurable optimist. This difference, I think, affected the character of their economics. Keynes had high hopes for an eventual solution of mankind's economic problem.[17] Schumpeter harbored no such hopes.

2 Ideological Differences

Ideologies had an important influence on the economics of both Schumpeter and Keynes. Their influence upon Schumpeter's economics was profound, that upon Keynes' less but still substantial. Their very different ideologies account for important dissimilarities in their economics. Ideology is a term of numerous meanings. I shall deal first with three well recognised types, and later with two less familiar ones which especially help explain their dissimilarities in Macrofinance. Among the familiar types, there is first the meaning given to ideology by Marx, namely an unconscious viewpoint stemming from one's position in the economic structure, e.g., a bourgeois ideology. Second is a viewpoint derived from one's perceived position in a social or intellectual hierarchy, e.g., elitist ideology. A third, which, following Keynes, I shall term "meliorist," arises from one's desire to remedy perceived economic or social maladies.

Schumpeter appears to have been mildly influenced by the Marxian type of ideology, which shows up in his consistently grande bourgeois attitude on economic and social policies. But he was much more influenced by an "elitist" ideology. His elitism is reflected in his glorification of the "innovator," an "elitist" economic leader. It is also pretty clear that Schumpeter considered himself an "elite" innovator in the social sciences. This may account in good part for the immense breadth of his revolutionary mission. It may even help explain his "visionary" economic method; important "visions" come only to the peculiarly gifted.

Keynes' basic ideology, self-recognised, was "reformist," or "meliorist" as he termed it ("My Early Beliefs"). His meliorism was primarily directed towards economic matters; he was not a general social reformer.[18] Schumpeter exhibited not even a touch of "meliorism". As a scientist, he claimed to stand aloof from all economic and other social problems. Fitzgibbons (1988) suggests that Keynes' economic meliorism was in turn the product of an "elitist" ethic. Keynes undoubtedly saw himself as among the intellectual elite. Fitzgibbons suggests that he felt that this position carried with it a social duty. As an economist, he felt it was his social duty to help assure the material foundation for mankind's "cultural and moral progress".[19]

It is especially in Macrofinance that the two additional types of ideology I wish to introduce help explain Schumpeter's and Keynes' dissimilarities in economics. They affected Schumpeter's macrofinancial views substantially, although they had little if any influence upon those of Keynes. The first of these I shall label "Disciplinary Ideology". I refer to what are commonly called "Paradigms," that is, patterns of thought on which theoretical structures are built.[20] A paradigm is completely unlike the "pre-analytic cognitive vision" Schumpeter saw as the origin of economic theorising. On the contrary, paradigms are consciously held analytical structures which in economics commonly take the form of "models". Paradigms are likely to be even more influential than other forms of ideology, because they carry the force of intellectual legitimacy and tradition. Paradigmatic influence was extremely strong in Schumpeter's work. Although a would-be "revolutionist," he was also very much a traditionalist in his economics. More than most economists, he honoured his intellectual forbears. Keynes had only a waning respect for the paradigm of "classical" economics, and he worked hard to eliminate its influence.

The paradigm upon which Schumpeter's work proceeded was a combination of elements he inherited from his intellectual forbears plus others he himself created in his early works. Reinforced by his "visionary" method, which prevented his changing his mind, Schumpeter's initial paradigm controlled his theorising throughout his life. Keynes, with much difficulty, freed himself from the Marshallian paradigm in which he was trained. He had done so by the time he completed *The General Theory*. Schumpeter never freed himself from his.

Among their dissimilarities in Macrofinance, those pertaining to money and credit can be fairly well explained by paradigmatic influences. In monetary theory, Keynes' final view, that the essential function of money is providing liquidity against uncertainty, ran counter to Schumpeter's paradigm that money is simply the "circulating" means of payment of an economic system. This paradigmatic view of money explains why Schumpeter rejected the "portfolio" type of monetary analysis which eventually led Keynes to his radically new type of monetary theory. Similarly, Keynes' view that most types of credit are expansionary because they finance spending that would not otherwise take place, ran counter to Schumpeter's paradigmatic view that credit, to be expansionary, must create actual credit instruments that "circulate". It is for this reason that Schumpeter differentiated bank credit sharply from other types of credit. As I have shown elsewhere (1994), this view prevented Schumpeter from fully sharing Keynes' "creditist" position.

On the other hand, their sharp differences regarding the theory of interest, and their deeply opposed views on saving, cannot be adequately explained by paradigmatic influence. Here still another kind of "ideology" played a role in explaining their dissimilarities. Schumpeter himself introduced this meaning of ideology into the economics literature. In the *History* he wrote (p.282, note 9): "... if we define ideologies in a sense that is both broader and more useful than the Marxian one, any obsession that limits our range of vision and enslaves our thought then comes within that concept".

In his later years, as his biographers show, Schumpeter was increasingly beset by obsessions of one sort or another. One of these, which followed the publication of *The General Theory*, was a deep hostility towards "Keynesianism". It was such "obsessive ideology," I believe, that distorted Schumpeter's view of Keynes' liquidity-preference theory of interest and intensified his hostility to what he called the "fallacy of over-saving". His obsession about "Keynesianism" is, I think, in good part responsible for his contemptuous rejection of Keynes' liquidity-preference theory of interest, although his paradigmatic view that there is no real "demand" for money - that money is only a circulating means of payment - may also have played a part. That Schumpeter's rejection of Keynes' liquidity-preference theory was more "obsessive" than analytical is suggested by his gross misinterpretation of the meaning of "liquidity-preference". In *Capitalism, Socialism and Democracy* Schumpeter declared that liquidity-preference represents "a desire to save unaccompanied by a desire to invest" (1950 edition, p. 395). In fact, Keynes drew no connection between liquidity-preference and saving. Liquidity-preference concerns the decision how to hold one's wealth, not whether to spend or save.

Let us turn, finally, to saving, regarding which Schumpeter and Keynes had the most violent disagreement. Schumpeter's attitudes towards saving are, I think, almost completely a product of his ideologies. They reflect both his strong bourgeois ideology and his "obsessional" attitude toward "Keynesianism". It is impossible to explain them by his economics. Keynes' treatment of saving is a consistent part of his theory explaining changes in aggregate expenditure and income. Not so with Schumpeter. He explicitly rejected the traditional doctrine that saving is the source of investment funds. Saving plays no role in either his theory of business cycles or of economic development. I therefore conclude that his reverence of saving, and his violent opposition to what he considered Keynes' "fallacy of saving," trace back to his general bourgeois ideology plus his "obsessional" aversion to "Keynesianism," possibly to Keynes himself. Certainly, Schumpeter's obsessive ideology regarding "Keynesianism", joined with his paradigmatic views on money and credit, distorted Schumpeter's views in Macrofinance.

Indeed, I believe "obsessional" ideology had a much wider influence on Schumpeter's economics. Obsessions can be positive as well as negative. As Schumpeter put it, an obsession "limits our range of vision and enslaves our thought". Schumpeter had a virtual fixation on his "vision" of Capitalism being dominated by innovation, as well as upon the analytical model that he developed in *The Theory of Economic Development* to articulate this vision. This fixation made him unable to see that many other things besides innovation - including the macrofinancial disorders that Keynes emphasised in his work - could generate business cycles and influence economic development.

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Notes

1 In his earliest works, Schumpeter criticised the failure of economics to integrate monetary with general economic theory, and he remained dissatisfied with the state of monetary theory (including his own) all his life. Keynes gradually became unhappy with prevailing monetary theory (the Quantity Theory of Money) and abandoned it completely in *The General Theory*.

2 In recent years there has been much written on Keynes' underlying philosophy and its relation to his economics. See especially Bateman and Davis, Carabelli, and Fitzgibbons.

3 Schumpeter recognised that this "visionary" approach runs the risk that ideologies will influence economics via the initial "visions". But he contended that the economic analysis used in formulating the "model," being scientifically disciplined, would tend to filter out ideological influence. If not, the empirical testing of the model would reveal mistakes that may have been made in either the "vision" or its modeling. Their divergent revolutionary aims reflected what they regarded as important to economics. Schumpeter, a "theorists' theorist," saw, quite correctly, that a theory of economic development was needed to complement existing "static" microeconomic theory. The pragmatic Keynes may or may not have recognised this need, but if so he regarded it as much less important than correcting the prevailing theory of the short-run behaviour of aggregate output and employment.

4 Schumpeter was greatly influenced by Marx. In the preface to the Japanese translation of *Economic Development* he wrote that the book's leading idea and aim were "exactly the same as the idea and the aim which underlie the economic teaching of Karl Marx. In fact, what distinguished him [Marx] from the economists of his own time and those who preceded him, was precisely a vision of economic evolution as a distinct process generated by the economic system itself". (quoted in Essays, p. 160.) Keynes had almost no interest in Marx. He once called Das Capital "an obsolete textbook," which he claimed was based simply on a

"misunderstanding of Ricardo". While developing *The General Theory*, however, Keynes acknowledged that Marx's formula for Capitalism - M-C-M' - was the correct one, rather than the "Classical" economists' C-M-C.

5 Schumpeter contended that *The General Theory* was strictly "static," because it did not incorporate innovation. This view fails to recognise the dynamic implications of Keynes' uncertain expectations. Keynes' disciples later built "models" based on a "consumption function" and an "investment function," but typically neglected to note that the "investment function" is, in *The General Theory*, based on highly uncertain expectations, perhaps mainly on what Keynes called "animal spirits".

6 In the general field of Macrofinance Schumpeter was a pioneer well before Keynes worked in it. In his 1911 *Theory of Economic Development*, Schumpeter saw that "finance" was required to bring about the increase of total expenditure that accompanies the business cycle and economic development. Starting from his very fruitful macroeconomic concept of the "circular flow," Schumpeter saw that additional spending had to be financed from outside the repetitive circular flow. Keynes did not see this relationship clearly until his *Treatise on Money*, and he unduly neglected technical Macrofinancial matters in *The General Theory* - no doubt in his drive for simplicity.

7 He first expressed his monetary views in his *Theory of Economic Development*. In about 1925 he began work on a general treatise on money. He worked assiduously on this book for five years and resumed work on it for a year or so in 1932 after he had moved to Harvard. Occasionally he would return to it there after, but it remained unfinished when he died. The manuscript, entitled *Das Wesen des Geldes* was posthumously published in German in 1970.

8 In a 1927 article in *Economica*, he went so far as to say that to serve as a means of payment "is the only function of money". (quoted in Essays, p. 37, note).

9 Schumpeter held the view, held by surprisingly many economists even today, that credit extended by banks is ipso facto expansionary because it creates a "circulating means of payment," whereas credit extended by non-bank financial intermediaries or between non-financial units can have no effect upon total spending, since it creates no "means of payment".

10 For a full analysis of the role of credit in the expansion of total expenditure, see Earley, et al (1976) and Earley (1981b).

11 Keynes' theory of interest in *The General Theory*, although a great advance over previous theories, was much too simple. He based it on only two variables, liquidity-preference and the quantity of money, failing to analyse the supply and demand for loanable funds in a credit system dominated by financial intermediation. (Earley et al. 1976).

12 Schumpeter claimed that Keynes' hostility towards saving appeared as early as his 1920 *Economic Consequences of the Peace*. This work, Schumpeter said, expressed Keynes' career-long "vision," of a "mature" economy in which saving threatens to outrun investment opportunities. Keynes' subsequent theoretical works, Schumpeter claimed, were successive efforts to articulate this initial vision. This view of Keynes' "vision" and of his work as a whole is quite incorrect. His distrust of saving developed only gradually. In the *Economic Consequences*, in fact, Keynes feared a lack of saving in the postwar era. He wrote forebodingly: "All classes alike thus build their plans, the rich to spend more and save less, the poor to spend more and work less". (p. 2). His vision of Capitalism at that time was mainly of its fragility. The only suggestion of his later views was that the experience of World War I had indicated that "we did not exploit to the utmost the possibilities of our economic life". (Idem.)

13 Schumpeter recognised that his concept of saving was eccentric. A note on p. 75 of *Business Cycles* reads, "Full justification of the conceptual arrangement adopted cannot be given without going much more thoroughly into the theory of money than is possible in this book, and will, it is hoped, be presented in the writer's treatise on money". This treatise was never finished. The unfinished work is examined by Reclam. It included nothing significant regarding Schumpeter's concept of saving.

14 This difference, I think, accounts in part for their different success as revolutionists. Schumpeter's theoretical focus was diluted by its broad scope. Keynes' focus on his narrower revolutionary objective was sharp and undiluted.

15 Paul Sweezy, once a graduate Teaching Assistant for Schumpeter at Harvard, has written me: "I remember once some of the students asking me to tell JAS that they would like him to explain his own theories to them (some said they had come to Harvard for that very purpose). I did as they asked, and he listened. But he never did anything about it. That of course was one reason, perhaps the main one, why he never became the founder of a "school" in the manner of the Austrian and the Cambridge economists (especially Marshall and Keynes)".

16 During the writing of *The General Theory* he maintained constant contact with close colleagues. A group of these met together weekly on the developing manuscript, in what they called "The Circus," and their views were regularly reported to Keynes. The assistance of able colleagues must have been of great help in Keynes' revolutionary effort. As Keynes observed in the preface to *The General Theory*, "It is astonishing what foolish things one can temporarily believe if one thinks too much alone". (vii). Schumpeter worked virtually alone, and his work suffered from it.

[17] In his doubly revealing obituary article (1946), Schumpeter wrote: "Keynes was pleasant, kind, and cheerful, as are those whose first principle is never to let any pursuit of theirs degenerate into work". "He knew what it was to be tired, but he hardly seems to have known dead hours of cheerlessness and faltering purpose" *(Ten Great Economists*, pp. 271-72). These words tell important truths about both men.

[18] According to Quentin Bell, Keynes remarked at a 1934 Bloomsbury dinner party: "... given time, he would deal thoroughly with the Marxists, and indeed all the other economists, and then there would be no more economic stress". For his strong economic optimism see also his "Economic Possibilities for Our Grandchildren" in *Essays in Persuasion*. Keynes, characteristically, was prepared to change his mind. In his Early Beliefs, read by Keynes to his Bloomsbury friends in the fall of 1938, he admitted that the Utopianism and optimism of the group, including his own, was flimsily based. (p. 102).

[19] Schumpeter, in his obituary article on Keynes (1946), declared that Keynes "abhorred bourgeois values". In fact he defended most of them in his mature years. What Keynes deplored was waste, especially the waste of mass unemployment, as is evident by his persistent efforts to eliminate it.

[20] The concept of paradigms, I believe, was first popularised by Thomas S. Kuhn (1970). He dealt with revolutions in physical science. The relations of "paradigms" to economics are examined in Redman.

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