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Address:
The Editor, *History of Economic Ideas*,
Dipartimento di Scienze Economiche, Facoltà di Giurisprudenza,
Via Curtatone e Montanara 15, i 56126 Pisa,
tel. +39 050 2212845, fax +39 050 2212853, hei@ec.unipi.it

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INFLUENCING KEYNES: THE INTELLECTUAL ORIGINS OF THE *GENERAL THEORY*

Steven Kates*

rmit University, Melbourne
Department of Economics, Finance and Marketing

Richard Kahn aside, from which other economist did Keynes derive even a single idea found in the *General Theory*? As a reading of almost the entire literature on the transition from the *Treatise on Money* will show, there is no economist to whom Keynes gave the slightest credit as an influence on the arguments found in the text nor are such influences an important part of the subsequent literature. Yet for all that, Keynes owed major debts to a number of economists from whose works he took significant components without acknowledgment. His taking the words «supply creates its own demand» from the entirely unknown Harlan McCracken set a pattern that can be recognised in his unacknowledged acquisitions from others amongst his contemporaries. The present paper will focus on the works of a number of economists, mostly American, from whom it will be shown that Keynes took a number of concepts that were to feature in the arguments presented in the *General Theory*.

> The *General Theory*... is a mutant notwithstanding Keynes's own expressed belief that it represents a 'natural evolution' in his own line of thought.
>
> Paul Samuelson 1946, 194

> The basic axiom of an exchange economy (sometimes called 'Say's Law') [is] that the supply of one commodity is the demand for another and vice versa, and that consequently the aggregate demand and supply are necessarily equal, with money a mere intermediary.
>
> Frank Knight in 1928!, 91

Preamble

In order to appreciate the singularly important but unrecognised influence of a series of economists on the content and arguments of the

* Address for correspondence: S. Kates: steve.kates@rmit.edu.au
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General Theory it should be understood that neither the term «Say's Law» nor Keynes's definition of Say's Law, «supply creates its own demand», are classical in origin. Both are twentieth century constructions of American economists. Yet none of the major discussions of the origins of the *General Theory* indicate where either the term or the definition originated. If one does instead recognise their origins then a major reinterpretation not only of the road between the *Treatise* and the *General Theory* is required, but also of the core message of the *General Theory* itself.

The Conventional Argument

This paper is primarily about the influence of a number of mostly American economists on Keynes in writing the *General Theory* and his use of their ideas to turn economic theory in a new direction. The *General Theory* in fact has origins very far from what are found in the standard story of a gentle evolution away from the *Treatise on Money* and a gradual adoption of the ideas that would become the *General Theory*. In the standard story it is all seen as piecemeal with no guiding principle to light the way. It is this standard story that is being challenged in the present paper.

What is also evident in most of the literature on the transition from the *Treatise* is that no other economist is given credit by Keynes or by most commentators for any of the arguments found in the *General Theory*. There are many who are recognised as having criticised the *Treatise* and with breeding within Keynes a sense of dissatisfaction with that earlier work. And there are many economists sharply criticised by Keynes in the *General Theory* itself. But so far as the development of the *General Theory* is concerned, aside from Kahn and the multiplier,[1] there are no other economists from whom Keynes is seen to have taken any of the ideas which were included. Keynes's oft-quoted letter to Harrod (*cw*, xiv, 85) appears to have set the tone, in which Keynes is seen to have merely thought long and hard about these issues, eventually coming up with a series of ideas through contemplation alone. As he described the process himself in that same letter, they consisted of personal «moments of illumination» (*ibidem*). It will, however, be argued in this paper that those moments of illumination were preceded by his reading the works of other economists, both contemporary and classical. It was his reading of their works that had a major but as yet largely undocumented effect on the arguments presented in the *General Theory*.

[1] See Marcuzzo 2002 for an in-depth discussion of Kahn's influence on Keynes during the transition between the *Treatise* and *General Theory*.

The conventional view is typified by Moggridge's «From the *Treatise* to the *General Theory*: An Exercise in Chronology» (1973). As the editor of *Keynes Collected Writings* he has had an outsized authority in determining the canon. He himself argued on behalf of his own authority, writing that his role as editor «had given me a very good idea of the development of Keynes's ideas» (*ibidem*, 72). Yet the chronology presented by Moggridge is deeply misleading both in what it includes and what it leaves out. And what is stressed in Moggridge's account are Keynes's dealings with those amongst his personal circle. No wider set of intellectual threads are noted or discussed. Moggridge's approach is summarised in his final paragraph where he concluded that his own narrative «highlights the evolutionary nature of Keynes's onwards from his *Treatise*, reformulating, clarifying and replacing concepts as he went» (*ibidem*, 87).

Twenty years later, Don Patinkin published his own chronology of the *General Theory* (1993). Unlike Moggridge, Patinkin recognised a sharp discontinuity between the *Treatise* and the *General Theory* (*ibidem*, 648). Patinkin also noted that one of the most important sets of early manuscripts had been found «in a single bundle, which was not in any particular order», which only came to light because Patinkin had written to Moggridge about dating.[1] Importantly, this led Patinkin to conclude that «Keynes formulated his theory of effective demand during 1933» (Patinkin 1993, 656).[2] And of that fateful year 1933, aside from three major publications all before April, «very little survives from Keynes's activities as prospective author of *The General Theory*» (Moggridge 1973, 81). Yet it was during 1933 as well as the first half of 1934, that the core notions of the *General Theory* were developed. And in developing these concepts, there were a number of other economists to whom Keynes turned without acknowledgement and without citation.

That little has changed so far as scholarship on the origins of Keynes's ideas is concerned can be seen in an examination of Tily (2010). Tily provides possibly the best available short summary of the conventional view on the transition between the *Treatise* and the *General Theory*. In this account as in most others, no outside author is named as a major

[1] This is no small matter and occurs in spite of Moggridge's suggestion that his own chronology had been based on «secure dating» (Moggridge 1973, 72).

[2] As it happens, the moment of conception for the *General Theory* can be positively dated to October/November 1932 when Keynes first read Malthus's letters to Ricardo and discovered effective demand (see Kates 1994 and 1998). Tily 2010, 1, summing up the consensus view which has studiously avoided noticing the crucial role played by Keynes's discovery of Malthus, writes that the decisive step was Keynes's abandonment of the notion of «long-run classical equilibrium» which he notes took place between May and October, 1932 adding that «the actual motivation for and the circumstances of the step is not known».

influence on Keynes's ideas. All of the concepts found in the *General Theory* are seen as having been derived from Keynes's contemplating the various issues and clarifying his own ideas one by one. There is no discussion of why Keynes began to focus on effective demand or Say's Law. In common with others, Tily (*ibidem*, 4) highlights the «thinness of the research material» available after 1931, also noting that «primary sources are very limited». This paper, however, deals specifically with the period from the end of 1932 through until 1934.

Malthus and Effective Demand

In late 1932 Keynes, while at the commencement of writing his next book which was then provisionally titled *The Monetary Theory of Production*, came to the conclusion that deficient aggregate demand was the foremost, if not in fact the sole cause of recession and unemployment, a conclusion he reached because he was at the time reading Malthus's unpublished letters to Ricardo.[1] This conclusion contradicted Say's Law, a proposition which had by then been accepted for more than a hundred years with near unanimity within the mainstream of the economics profession. But having reached this conclusion, Keynes then had to prove that Say's Law was wrong by demonstrating that something else was right. It was in this search for arguments that could be used to demonstrate that aggregate demand might fall short of aggregate supply that he examined closely the economic literature of his time for arguments that could be used to prove his case. This was to become the organising principle for the *General Theory* and marks a sharp dividing line in Keynes's thought. His approach to each of the issues he was dealing with before and after his discovery of demand deficiency in Malthus is crucial to understanding his agenda.[2] To believe that the development was smoothly continuous between the *Treatise* and the *General Theory* makes it impossible to understand the way in which the *General Theory* was written.

But having discovered demand deficiency as a concept, it was then necessary to demonstrate that this was, in fact, the main cause of unemployment and recession. Keynes was by no means the first to come upon this idea, but until then no one had been able to convince the mainstream of the profession that it was a valid operational concept.

[1] For a more comprehensive discussion of this discovery, see Kates 1994.

[2] Clarke 2009, 143-144 unequivocally states that Keynes did not take the concept from reading Malthus during October of 1932 but merely found a name, «effective demand», for what he had already discovered for himself. Yet Clarke also puts a date on this discovery, 31 October 1932 (*ibidem*, 143), which he most emphatically does not relate to the fact that Keynes was just then reading through Malthus's letters to Ricardo. The refusal to accept the obvious, which is pervasive across the entire expanse of Keynesian scholarship, is astonishing.

This was the task that Keynes set before himself and to do so required him to consider the arguments presented by others. It is the central thesis of this paper that Keynes appropriated for his own purposes some of the most important ideas that would appear in the *General Theory* from within the works of a number of economists of his day. It is these ideas that would ultimately be embedded within his own framework but in ways that were separate from the uses for which these ideas had been originally put. He thus built his own economic engine refashioned from the parts he had originally found in the theoretical works of others.

There are nine economists discussed in this article. Of the nine, the four most significant had their books published in either 1933 or 1934, just as Keynes began to research the *General Theory*. The four published during that period were Harlan Linneus McCracken, John R. Commons, Frank Knight and Joseph Schumpeter. Nor have these authors been chosen simply because broad parallels with their work can be found in Keynes. The four principal authors examined have been chosen for specific reasons related to Keynes's activities at the time, his previous associations with others, or because of observations made by contemporaries in which they themselves have highlighted particular influences on Keynes.

Firstly, in relation to McCracken, we know with certainty that Keynes read McCracken's book while in the midst of writing the *General Theory* because Keynes wrote to the author to say so. Secondly, in regard to Commons, McCracken, who was in an unusually good position to know, wrote that Commons, an economist whose work Keynes was very familiar with, had priority in having reached certain conclusions in regard to the marginal efficiency of capital that Keynes would later take up in the *General Theory*. Thirdly, in regard to Knight, in the *General Theory* Keynes specifically deals with risk versus uncertainty, an issue he had not previously discussed in any of his previous work but which Knight clearly had. And then finally Schumpeter is discussed because he had himself suggested that Keynes, in employing a monetary theory of interest, had been directly following Schumpeter's own approach to interest rate determination.

Other economists discussed in this article are Piero Sraffa, Irving Fisher, Fred Manville Taylor, William T. Foster and Waddill Catchings. Sraffa's influence was early and personal. With Fisher, although the work discussed below was published in 1930, there is no question that Keynes had read Fisher's book since Keynes in the *General Theory* says so himself. But what is interesting about Fisher is not just that Keynes's own ideas paralleled Fisher's but also the manner in which Keynes came to say so. And while it is unlikely that Keynes ever read Taylor, it was Taylor who had invented the term «Say's Law». Finally, there is a discussion of the works of Foster and Catchings whose absence in the literature on the genealogy of the *General Theory* is what is in need of explanation. Keynes had himself previously cited their works when not himself writing on demand deficiency but then ignored them when he did, even though their research dealt at length, over many books and articles, with demand deficiency as the principal cause of recession.

The Central Message of the *General Theory*

Oddly perhaps, the actual nature of the Keynesian Revolution remains controversial.[1] Yet the almost universal use of aggregate demand in macroeconomic analysis up to the present day can be traced to the publication of the *General Theory* in 1936.[2] It was Keynes's attack on Say's Law, defined by him as «supply creates its own demand», that fundamentally changed the way in which economic issues are framed and policy devised. Keynes's specific message was that economists cannot safely neglect aggregate demand (see *CW*, VII, 32). The reason they had nevertheless done so until then, he argued, was that they had been following the example set by Ricardo. Had they followed Malthus instead, he wrote, economists would have had a better understanding of how economies actually operate. The pervasive presence of aggregate demand in macroeconomic analysis and policy is a direct consequence of the publication of the *General Theory*.

The Keynesian Revolution, which swept the economics world in a matter of less than a decade, had its origins in Keynes's reading of Malthus's letters to Ricardo in late 1932. It was from these letters that Keynes discovered the issue of demand deficiency. Reading Malthus's letters in the midst of the Great Depression infused within him the belief that demand deficiency was the cause of recession and mass unemployment. The essay on Malthus, found in Keynes's *Essays in Biography* and published in February 1933, makes plain the extent to which he had absorbed Malthus's economic views while reading Malthus's writings. Malthus had been the leading advocate of demand deficiency in the nineteenth century. It was this message that Keynes's carried into the twentieth.

The pivotal role played by Malthus in influencing Keynes's ideas has had virtually no recognition in the economic literature. Yet it is only by recognising the influence that reading the Ricardo-Malthus correspon-

[1] For a comprehensive discussion of the differences over both the intent and the subsequent effect of the *General Theory* on macroeconomic theory see Patinkin 1982 especially its opening chapter.

[2] The Keynesian-cross diagram made its first appearance almost immediately in 1939 (see Schneider 2010) while Hicks published his IS-LM diagrams even earlier in 1937.

dence had on his understanding of the way in which economies work that one is able to understand how Keynes came to write on Ricardo, Malthus, Say's Law and demand deficiency. From 1932 onwards Keynes was determined to demonstrate how aggregate demand might become deficient, leading in turn to a fall in output and employment. It was this determination that came from his reading of Malthus, and especially from Malthus's criticisms of Ricardo.

The literature on the transition from *The Treatise on Money* published in 1930 to the *General Theory* published in 1936 has continued to examine the process of re-examination associated with the *Treatise*. The story of a gradual evolution away from the earlier work towards the *General Theory*, in which Keynes recognises the need to rethink what he had done and then, from late 1932 or early 1933, strikes out in a new direction, can be found in all of the standard references. And it is through discussions with his associates, mainly within Cambridge but anyway entirely within the British Isles, that, according to the standard account, Keynes is finally able to clarify his thinking, introduce new concepts and ultimately write the book that would change the way in which macroeconomic issues would thereafter be discussed and policy devised.[1] Aggregate demand, it need hardly be said, remains deeply embedded within macroeconomic analysis to this day.

Dating Keynes's Discovery of Effective Demand

In understanding the provenance of the *General Theory*, dating is crucial. Keynes was writing a book in 1932 as academics do and as he himself regularly did. He began his Michaelmas Lectures, delivered during October and November of 1932, by stating he was writing a new book whose title would be *The Monetary Theory of Production*. The book was explicitly stated to be about the influence of money on the level of output;[2] it was not about effective demand failure. In the first of Keynes's Michaelmas lectures (October 10, 1932), the first written statement as recorded in his lecture notes[3] by Laurie Tarshis, is an explanation for the new name Keynes has given his course:

[1] It is something of a solecism to use the term «macroeconomics» in relation to pre-Keynesian writing on the business cycle. The term was introduced during the 1930s, probably by Frisch (Haberler 1941, 248, fn.), so should not, strictly speaking, be used to refer to the economic writings of earlier periods.

[2] That Keynes in 1932-1933, at the very depths of the Great Depression, had turned to examine the determinants of output and employment should occasion no surprise. It was not that he was looking at this question which was revolutionary but the answer he gave.

[3] The quotations are from Thomas Rymes's carefully transcribed *Keynes Lectures, 1932-35: Notes of Students* which exist only as photocopies of Ryme's original typescript. What has been published is *Keynes's Lectures, 1932-35, Notes of a Representative Student* (Rymes 1989) which is a synthesis of these notes undertaken by Rymes.

> The change in title was significant – the influence of monetary manipulation on production rather than prices.
>
> (Tarshis in Rymes ed. 1988, I1)

The first seven of the eight Michaelmas Lectures is indeed about just that, money in relation to output and employment. Keynes had a stock of concepts and variables which he put to different uses in his different books. To anyone familiar with the *Treatise on Money*, in these first seven lectures is found a continuation of those same arguments. They are a further manipulation but there is nothing especially novel. Where Keynes had been heading at the time he began in early October may be seen from the very last line of Tarshis's notes on the seventh lecture given on 21 November which was put in quotation marks indicating it was a direct quote from Keynes:

> 'Problem of curing unemployment is a problem in monetary economics'.
>
> (Tarshis in Rymes ed. 1988, I27)

This is not even remotely the message of the *General Theory*. This is not about effective demand failure or aggregate demand. This is still the Keynes of the *Treatise on Money*.

But even while Keynes was writing and delivering these lectures, he was preparing for publication his *Essays in Biography* which would be published very early in 1933. And of major significance was the inclusion of his essay on Malthus. In updating these essays Keynes for the first time read Malthus's letters to Ricardo in which are found repeated and ongoing discussions on effective demand failure as the cause of unemployment during the depressions that followed the ending of the Napoleonic wars. Malthus had argued demand failure was their cause while Ricardo had rejected this explanation out of hand.

The eighth and final lecture, dated November 28, 1932, goes in a completely different direction. There, for the first time in any of Keynes's writings, we come across the Keynes of demand failure.[1] In Tarshis's notes we now find this:

> (3) Spending is good for trade – the extravagant man benefits his neighbours – in a society where S > I generally, the young gentleman would perhaps be conferring a benefit….
>
> (4) Held by A[dam] S[mith] that labour is essentially the standard of value – the level of wages determines prices – explanat[ion] of prices was to be found in effective demand.
>
> (Rymes ed. 1988, I28; the ellipses and square brackets are found in the original)

[1] Note that while the lecture may have been delivered at the end of November, other evidence indicates these ideas had by then been brewing in Keynes's mind for about a month (see Kates 1994).

A more comprehensive discussion of the eighth Michaelmas lecture was provided in the notes kept by Robert Bryce. By 28 November, Keynes had read Malthus's letters and probably Malthus's *Principles* from which he would quote extensively in the essay on Malthus that he was in the midst of writing. It is therefore interesting to note that Bryce records the following at the start of the lecture:

Historical – Ideas held at earlier date, etc.

Traditionally uncultured at Cambridge Economics
But the habit of browsing among old books to get ideas held – merely for cultural interest, etc.

(Bryce in Rymes ed. 1988, A48)

Bryce's notes provide a discussion of the Malthusian notion of recessions as a result of excess saving relative to investment:

The popular view that spending is good for trade

– if saving is ahead of investment, the spendthrift is helping the community

Only economists believe that saving would be good – O Economists [!]

(Rymes ed. 1988, A 50; square brackets, including the exclamation mark, are found in Bryce's notes as recorded by Rymes)

In Bryce is also found a marginal note in relation to an observation made by Keynes which reads, «Malthus also held this Ricardo destroyed it» (Rymes ed. 1988, A51). It is this sentiment that would be repeated in the brief opening chapter of the *General Theory*. And in the notes taken by (Sir) Alex Cairncross on this same lecture, we find the statement, «cf. also Malthus on effective demand» (Cairncross in Rymes ed. 1988, D22).

It is a commonplace amongst Keynesian scholars that Keynes embarked on a major change in direction away from the *Treatise* and towards what would become the *General Theory* either towards the end of 1932 or at the start of 1933. And while there is a reluctance to recognise it was because he was reading Malthus that this change of direction occurred, the evidence is certainly sufficiently large for this conjecture to be accepted as almost certain to have been the case.

Piero Sraffa

But having been awakened to the issue of demand deficiency through reading the Ricardo-Malthus correspondence, which was then supplemented, as we are told in his essay on Malthus, by his reading of Malthus's *Principles of Political Economy*, where did Keynes go then? Almost certainly to Piero Sraffa, the editor of Ricardo's *Collected Works*, from whose hands Keynes had received Malthus's letters. These letters had been lost for more than a century until discovered by Sraffa in 1930 and would not be published until the 1950s. Keynes in 1932 was in a very unique position in having these letters to hand.

But he had more than just the letters, he had Sraffa himself. In a letter to Malthus's biographer, James Bonar, written on 3 November 1932 (KP, B/1), Keynes states that he and Sraffa are to visit Malthus's old home in the following week. Their conversation would have included at least some discussion of the significance of the Ricardo-Malthus correspondence. Sraffa, working as he was on the Ricardo papers, can be expected to have had an extensive knowledge of the general glut debates of the nineteenth century and would have been able to place Malthus's writings into their proper context.

Sraffa's frequently noted reluctance to comment publicly on the *General Theory* after its publication is in itself a commentary. He notoriously had little regard for what Keynes had written but kept his own council. As noted by Harcourt, «Sraffa was more and more to distance himself from Keynes of the *General Theory*» (1986, 96), a point restated by Mongiovi who wrote that Sraffa «sat out the Keynesian revolution» (2002, 238). And while both try, neither can satisfactorily explain this reluctance on the part of Sraffa to stay out of these debates.[1] That Sraffa's reluctance is related to his disagreements over the question of the classical dispute between Ricardo and Malthus in relation to the law of markets has not apparently occurred to anyone even though Sraffa's most famous work, *Production of Commodities by Means of Commodities*, is deeply embedded in classical economics and particularly in Ricardian analysis.

Sraffa did, however, share his views with Keynes during the writing of the *General Theory* as a quote from a letter from Keynes to his wife dated 3 December 1933 makes clear. In his note to Lydia, Keynes wrote that «Piero of course made some exhausting difficulties, but nothing of real consequence, I am glad to say» (*CW*, XXIX, 62). The nature of those difficulties Keynes did not go on to state. But what can be said is that in the same letter in which Sraffa gave Keynes permission to quote from Malthus's letters, dated 20 December 1932, Sraffa wrote, «Only don't treat too ill my David!» (KP, B1). Sraffa clearly understood even then Keynes's antagonisms to David Ricardo which would later feature in the *General Theory*. Thus, whatever Keynes may have learned about these issues from Sraffa, it would have been learned from someone unsympathetic, possibly very unsympathetic to the views Keynes had come to

[1] Any doubts that Sraffa had a profound disdain for the *General Theory* can be dispelled by a reading of Sraffa's unpublished «Notes on the *General Theory*» found in the Sraffa archive (SC, Catalogue Number: I100) held in the Wren Library at Trinity College, Cambridge.

hold. For a more sympathetic and full scale instruction on what Keynes had found in reading Malthus, another source was required.

Harlan Linneus McCracken

It was at this very moment, sometime early in 1933 and purely by chance, that Keynes received an unsolicited copy of a newly published book, *Value Theory and Business Cycles*, written by an American economist at the University of Minnesota by name of Harlan Linneus McCracken. That Keynes read at least a portion of this book while writing the *General Theory* has been evident since the publication of volume XXIX of Keynes' *Collected Writings* in 1979. In «a draft of chapter 2 from the last 1933 table of contents» (Moggridge in CW, XXIX, 76), there is an extended footnote which begins:

> Cf. H.L. McCracken, *Value Theory and Business Cycles*, [New York, 1933], 46, where this part of Marx's theory is cited in relation to modern theory.
>
> (CW, XXIX, 81, fn.; square brackets in the original)

Most scholars have attached little significance to this citation since neither McCracken nor Marx had appeared to have had much to contribute to our understanding of how the *General Theory* came to be written as it was. This is in spite of the fact that *Value Theory and Business Cycles* is about the conflicting approaches to the business cycle one would be prone to take were an economist to follow Ricardo rather than Malthus. Indeed, the book is largely about the impossibility of utilising Ricardian analysis in explaining the business cycle in contrast to the need to employ the kind of analysis pioneered by Malthus. All this is set out in the preface. Firstly McCracken discusses Ricardo:

> The analysis appears to show that no embodied value theorist can logically explain a business cycle. He either involves himself in a dual theory of value, a logical inconsistency, or explains nothing but a secular trend. The presentation is quite critical, since it deals, as we believe, with the 'false trails,' based upon an erroneous theory of value, formulated by Ricardo.
>
> (McCracken 1933, v)

Keynes, in arguing that because his contemporaries were following in the steps of Ricardo the notion of involuntary unemployment is a «possibility of which the classical theory does not admit» (CW, VII, 15), or that there is a «vitally important chapter of economic theory which remains to be written without which all discussions concerning the volume of aggregate employment are futile» (*ibidem*, 26) appears to be making a claim almost identical to the characterisation made by McCracken: an inability to generate a cyclical downturn appeared to be a consequence of adopting a Ricardian approach to the business cycle. In turning to

Malthus, however, McCracken presents an argument that would be mirrored in the *General Theory*:

> Malthus serves as a logical starting point for the consideration of business cycles, first, because he stressed the importance of 'short run' factors, and second, because his value approach was from the demand side. Consistent with his theory of value, he held that business might be depressed, either by a voluntary failure of demand on the part of those who had the power but not the will, or by an involuntary failure of demand by those who had the will but not the power.
>
> (McCracken 1933, v-vi)

This is the same Malthus and the same contrast with Ricardo that would later on be found in the *General Theory* itself.

Keynes's Letter to McCracken

Until now, however, the question whether Keynes had actually read McCracken's writings on Ricardo and Malthus was unanswerable. That he had read the sections on Marx was unarguable but whether he had read any of the rest of *Value Theory and Business Cycles* could only be left to conjecture.

Moreover, the question of Malthus's writings having been a significant influence on Keynes's thinking is far from accepted. It is for these reasons that a 1933 letter from Keynes to Harlan McCracken uncovered in June 2007 is of such significance (see Kates 2008). The letter makes clear the answers to both of these issues: firstly, whether Keynes read more of McCracken than just the section on Marx, and secondly, whether Malthus had been a major influence on Keynes's thought. The following letter, dated 31st August 1933, was found in the McCracken archive at LSU where it had lain since being deposited in 1961.[1]

> Dear Dr. McCracken,
>
> Having now read your book, I must again thank you for having sent it to me. For I have found it of much interest, particularly perhaps the passages relating to Karl Marx, with which I have never been so familiar as I ought to have been.
>
> In the matter of Malthus, you will perhaps have seen from my account of him in my lately published "Essays in Biography", which appeared before your book was out, but after I think you had written it, that I wholly agree with you in regarding him as a much under-estimated pioneer in the line of thought which to-day seems to me by far the most likely to lead to progress in the analysis of the business cycle. Your contrast between Ricardo and Malthus contains, I am convinced, the essence of the matter.
>
> Yours very truly,
>
> J. M. Keynes

[1] Reprinted with kind permission from the Harlan Linneus McCracken Papers, Mss. 2569, Louisiana and Lower Mississippi Valley Collections, LSU Libraries, Baton Rouge (LA).

The answer to whether Keynes read McCracken is quite clearly stated at the very start of the letter. Keynes wrote «having now read your book», a statement which should settle any doubts about whether Keynes had read the other parts of the book dealing with matters aside from Marx.

But what is far more significant is Keynes's statement on the relevance of Malthus to how economic theory must develop. Keynes is unequivocal: it is Malthus's «line of thought» that is «*by far* the most likely to lead to progress in the analysis of the business cycle» (italics added). Keynes does not endorse any of the specifics of Malthus's analysis but its overall approach. It is a restatement of the sentiment found in his biographical essay where Keynes lamented, «if only Malthus, instead of Ricardo, had been the parent stem from which nineteenth-century economics proceeded» (*CW*, X, 100-101). Malthus does not provide the final answers, but it is from his analysis, according to Keynes, that economic theory ought to have initially developed, and even though it had not done so then, it should nevertheless do so now. It is Malthus's «line of thought» that Keynes would now himself adopt.

Supply Created its own Demand

One could, of course, decide Keynes had found someone else who had come to the same conclusion as he had on Ricardo and Malthus. Coincidence possibly or parallel development of ideas. One could thus say there is nothing in their mutual agreement on these questions that suggests McCracken had influenced Keynes except for this: it is from McCracken that Keynes takes the phrase "supply creates its own demand" as a definition of Say's Law.

It has been generally assumed those words have their origins in the early nineteenth century, most probably because when Keynes first uses the phrase himself, he states «from the time of Say and Ricardo the classical economists have taught that supply creates its own demand» (*CW*, VII, 18). The implication is that this was a standard form of words that had been the common property of early writers on economic matters in describing the law of markets. In actuality, neither this form of words nor any close variant has ever been found in any of the classical writers.[1] These words are, however, with only one minor variation, found in McCracken and with specific reference to Say's Law. The following is from McCracken's discussion of involuntary failure of demand:

[1] See Kent 2005 for a discussion in which he identifies Bonar and McCracken as the two possible sources and concludes it was from McCracken that Keynes took the phrase.

> The Automatic Production-Consumption Economists [ie those economists who accept Say's Law] who insisted that *supply created its own demand*, that goods exchanged against goods and that a money economy was only refined and convenient indirect barter missed the significance of the money economy entirely.
>
> (McCracken 1933, 159; italics added)

Thus, the one phrase virtually every economist can be expected to know was first written by Harlan McCracken. None of this is to suggest plagiarism since Keynes himself assumed an antique origin for these words from amongst the early classical writers. But whether consciously or not, here we have a book known to have been read by Keynes while writing the *General Theory* in which are found words that are found no earlier anywhere else as a definition of Say's Law. The evidence is, of course, circumstantial but is irresistible for all that: McCracken had profoundly shaped Keynes's thought. It was McCracken's understanding that it was Say's Law which divided Ricardo from Malthus, and it was McCracken's interpretation of Say's Law and the major role Say's Law had played in shaping the subsequent development of economic theory, that were adopted by Keynes. These became the standard framework for understanding this classical principle and its significance.

McCracken and the mpc

One other area of overlap should be noted, the highly suggestive parallel between McCracken's discussion of demand failure in Malthus and Keynes's subsequent analysis in relation to the marginal propensity to consume. Chapter 8 of the *General Theory* presents what Keynes regarded as the basic relationship between the level of income and the level of consumer demand. This relationship is presented as a «fundamental psychological law» (*cw*, vii, 96).

Compare this with the following passage in McCracken found in a chapter titled «The Malthusian System of Economic Thought». There McCracken wrote that diminishing marginal utility of goods in aggregate might lead to a fall in the level of demand relative to supply. The consequence is a fall in the proportion of one's income spent as incomes rise, and here too psychology has a part to play:

> It is readily discernible that Malthus was introducing a psychological element into value and price, and the law of demand and supply… By a rigorous application of the principle of diminishing utility, Aftalion showed how the intensity of desire for any given good declines as additional units are acquired or consumed, and in like manner intensity of desire for all goods declines as we climb down the scale of needs from the more necessitous goods to the less necessitous.
>
> (McCracken 1933, 214-215)

In Malthus's time, it would have been impossible to imagine an entire society having run out of demands in general. Malthus therefore attributed the insufficiency of demand to extreme inequalities of wealth where those with high incomes did not spend all they had received. A century later, Aftalion (1913) in an attack on the law of markets, can conceive of a situation in which diminishing marginal utility for goods in general might lead to a decline in consumption expenditure. This too is discussed by McCracken in a section of his book that one is directed to in the passage on Malthus just quoted. There McCracken wrote:

> Psychological observation reveals the existence of a long scale of desires, but desires of diminishing intensity… The intensity of desire diminishes as we increase our power to satisfy the lesser needs.
>
> (*Ibidem*, 145)

This is the same concept used by Keynes and here too it is presented as a psychological principle. Moreover, McCracken adds to the allure for Keynes of finally embodying this concept into mainstream economics with the suggestion that this would be a theoretical breakthrough of the highest order of significance:

> If Aftalion has succeeded in establishing the possibility of a voluntary failure of demand by those who have purchasing power but insufficient keenness of desire, when facing expanded production under the influence of the principle of diminishing utility, then it constitutes one of the greatest contributions to economic theory in a generation. Say's *Law of Markets*, according to which production financed consumption and supply generated adequate demand is in serious need of modification.
>
> (*Ibidem*, 149, fn.; italics in the original)

This passage is also noteworthy in that it gives a name to the relevant principle: «Say's Law of Markets».[1]

Completing the Task

The fortuitous arrival of McCracken's *Value Theory and Business Cycles* in early 1933 was a prime example in the parallel development of thought. Keynes immediately recognised the strong similarity of view. How much Keynes already understood of the context of the Malthus-Ricardo correspondence or the General Glut debates is difficult to know. But

[1] Although McCracken does use the phrase «Say's Law of Markets» it might be noted there is no particular reason to believe McCracken had brought this phrase to Keynes's attention. While someone obviously did, since the more common phrase in the American business cycle literature of the 1920s was the more simple «Say's Law» that was employed by Keynes, there are many possible sources from the time. This issue is discussed below in dealing with the American origins of this phrase.

McCracken, being as he was a specialist in the history of thought, would have added to Keynes's understanding of the issues at stake, and provided an appreciation of what was needed to refute Say's Law.

However, in showing that savings might grow as a proportion of income as income increased, it would have been clear to Keynes that less than half the task in demonstrating the possibility of demand deficiency was complete. What was still needed was a theory to explain why the additional savings made available because of a proportionate drop in consumption would not be channelled into investment through adjustments in the rate of interest. The elements that went into this part of the story were, in essence, the theory of liquidity preference, the marginal efficiency of capital and the related notions of expectations and economic uncertainty. These were, however, concepts that in early 1933 Keynes had not yet appreciated the significance of. As he noted in an oft-quoted passage in his letter to Harrod (*CW*, XIV, 85), these concepts would be assembled one by one.

Each of these concepts had already been discussed in depth in the contemporary economic literature by leading economists but in each case with a different purpose in mind. Moreover, each of these economists had had a book published during the early 1930s while Keynes was preparing the *General Theory*. Two of these works were published in 1933 and two in 1934, the years of greatest intensity in the development of Keynes's core ideas.

John R. Commons

The first of these economists was John R. Commons. In 1961, McCracken published his *Keynesian Economics in the Stream of Economic Thought*, a work that had developed out of his graduate seminar at LSU on Keynesian theory. In it he devoted an entire chapter to the work of Commons. This chapter is, moreover, no mere diversion but 34 pages in length and titled simply «John R. Commons». In his explanatory footnote, McCracken's first sentence stated that «perhaps the reader is entitled to a brief explanation as to why a rather extended treatment of Commons is included in a study of Keynesian economics» (McCracken 1961, 61, fn.). It is a question that might well be asked.

Although not mentioned in his book, McCracken had in fact undertaken his doctorate under Commons at the University of Wisconsin, completing his thesis in 1922 and receiving his Ph.D. in 1923. According to university records, the thesis was embodied in an article that was published in the *Review of Economic Statistics* in 1922 and titled, «Secular Trends and Business Cycles: a Classification of Theories». Its joint authors were listed as J. R. Commons, H. L. McCracken and W. E. Zeuch.

And although the article is about classifications of the theory of the cycle, its very first paragraph deals with the differences between Malthus and Ricardo. The differences outlined would be entirely familiar to anyone who had read the *General Theory*. Then well into the article the following discussion occurs which expands on their contrasting theories of the cycle in which it is noted that «Malthus differed from Ricardo at almost every point» (Commons, McCracken and Zeuch 1922, 258). Note the difference in policy that follows from Malthus's approach relative to Ricardo's. It is clear why Keynes preferred Malthus's theories to Ricardo's:

> According to Ricardo, there could be no universal or general overproduction of goods….
>
> "But Malthus contended that the great mass of commodities is exchanged directly or indirectly for labor, either productively or unproductively. Hence, compared with labour, *all of the goods* may fall in value at the same time. And this general fall in value proceeds from a 'glut,' just as any one commodity falls in value from an excess of supply, compared with labor or money.
>
> It followed that Ricardo's remedy for overproduction of some goods was more production of other goods. It followed that Malthus' remedy for overproduction was an increase in unproductive consumption, such as taxes, public employment, highways, improvement of landed estates and more employment of menial servants instead of 'productive' laborers.
>
> (*Ibidem*)

Then in a footnote reference to a discussion on Sismondi, and where it is noted that in the theory being discussed «the market becomes glutted because effective demand was lacking» (*ibidem*, 251), the authors state:

> This question [Sismondi] argued heatedly with J. B. Say and Ricardo. The two latter consistently held that 'goods exchange against goods' and therefore supply could never exceed demand.
>
> (*Ibidem*, 251, fn.)

Thus, going beyond McCracken one encounters arguments found within the institutionalist school in looking at the nature of the business cycle. None of this is presented as an example of parallel discovery but as part of a process in which the ideas that had been developed by Commons and his students were filtered through to Keynes via McCracken. These were mature ideas that had been debated extensively and were part of a literature on the cycle that was available to scholars across the world.

Commons and Expectations

But what makes it even more likely that Keynes would have sought out and read this article was that he was a long-time admirer of Commons and needed no introduction through McCracken. Skidelsky, in his biography of Keynes, noted the high regard Keynes had had for Commons since the 1920s. He stresses that Commons had been an «unacknowledged» although «important» influence on Keynes:

> Commons, an institutional economist who taught at Wisconsin University, is an important, if unacknowledged, influence on Keynes. Indeed, Keynes wrote to him in 1927 that 'there seems to me to be no other economist with whose general way of thinking I feel myself in such general[1] accord'.
>
> (Skidelsky 1992, 229)

Once Keynes had turned to Commons, the book that would almost certainly have come to his attention was Commons' then most recent publication, *Institutional Economics*, published in 1934 while Keynes was in the midst of his background research on the *General Theory*. And it turns out that the central issue raised by Commons was the issue that became the minor theme of the *General Theory*, the role of expectations in decisions to invest. One might be thought to be drawing a long bow to relate Commons and Keynes in regard to expectations, yet it was McCracken who made this connection without suggesting that Keynes might have taken the idea from Commons. Explicitly McCracken, who understood both Commons and Keynes with extraordinary clarity, having been taught by one and directly influenced the other, recognised how close their thinking on this issue was. McCracken, in looking back on the Keynesian Revolution, makes this observation:

> A final feature of *Institutional Economics* centers around the word 'futurity.' Commons definitely anticipated Keynes by approximately twenty years.
>
> (McCracken 1961, 69)

Futurity was Commons' depiction of value as an estimate of the future flow of income expected to accrue as the result of an investment. This is how McCracken describes the parallel notions in Commons and Keynes:

> In class notes of 1921 the author found this statement: 'Value is a mental appraisal in the present of future uses of incomes.' The same idea was later included in *Institutional Economics*: 'It is evident, indeed, that the entire concept of value is volitional instead of mechanistic, since value is a present estimate of something expected in the future.'
>
> **The meaning given to this formal definition was almost precisely the idea later expressed by Keynes in his *General Theory* (1936)**, in which Chapter 5 is devoted to expectations….

[1] This is a mis-transcription by Skidelsky. The actual word is the much stronger 'genuine' and not 'general'.

It is the judgment of the writer that Commons and Keynes have here given us the greatest single contribution to economic theory in this century.

(*Ibidem*, 70-71; italics in the original but the bolding has been added)

McCracken sums up the comparison by stating that «we learn both from Commons and from Keynes that the value of all goods, commodities, or services is the discounted present worth of future expectations» (*ibidem*, 73). This was, as McCracken explains, a long-held and long-developed theory of Commons', outlined at length in a book published in 1934. With Keynes, on the other hand, the marginal efficiency of capital, his name for this form of valuation, is a novel concept not previously presented in any of his prior works. Keynes, in his famous letter to Harrod on the development of the underlying concepts of the *General Theory* lists the MEC as having occurred last of all in the development of his own thinking and describes its gestation as difficult, writing:

After an immense lot of muddling and many drafts, the proper definition of the marginal efficiency of capital linked up one thing with another.

(*CW*, XIV, 85)

Moreover, Whalen notes that in a speech given in 1925, Keynes directly excerpts passages from a book written by Commons in that same year. The book, *Reasonable Value*, is a mimeographed typescript but one which had been published in that form and had been personally distributed by Commons to selected recipients (Whalen 2008, 229). Given the extensive quotes that Keynes took from this book in the speech he gave in 1925, it is clear that Keynes read this book.[1]

And what is of great significance is that section five of *Reasonable Value* deals with and is titled «Futurity», the issue dealt with by Keynes in the *General Theory*, which McCracken argued was «the greatest single contribution to economic theory in this century» and which McCracken had further argued that Commons had preceded Keynes by twenty years. Whalen (and others) have examined the connection between Keynes and Commons during the 1920s. More fruitful and of far greater potential importance would be an examination of the role Commons played in shaping Keynes's ideas in the early 1930s as the *General Theory* was being written.

[1] That Keynes read the whole of *Reasonable Value* may be inferred from the text of a letter from Keynes to Commons in which Keynes wrote: «Many thanks for sending me the introductory chapter of your forthcoming book on Reasonable Value. I have read it with great interest» (WHALEN 2008, 229).

Irving Fisher

That Irving Fisher had developed the concepts embodied in Keynes's Marginal Efficiency of Capital before Keynes had done so himself seems almost entirely beyond argument. In the *General Theory* we find the following acknowledgement of Fisher's work:

> Although he does not call it the 'marginal efficiency of capital,' Professor Irving Fisher has given in his *Theory of Interest* (1930) a definition of what he calls 'the rate of return over costs' which is identical with my definition… Professor Fisher uses his 'rate of return over cost' in the same sense and for precisely the same purpose as I employ 'the marginal efficiency of capital'.
>
> (CW, VII, 140-141)

Although a fulsome and apparently straightforward recognition of precedence, Patinkin explains how Keynes's acknowledgement of the fact of this prior development came about:

> Now, in the *General Theory* (p. 141) Keynes himself had attributed priority for the notion of the marginal efficiency of capital to Fisher; and only recently have we (with the help of Paul Samuelson) learned the fascinating story of how this priority was brought to Keynes' attention by Redvers Opie, at almost the last minute before publication.
>
> (Patinkin 1982, 9)

The details of how Keynes was alerted to the fact that others had recognised in a late draft of the *General Theory* the identical concept within Fisher's writing is dealt with at length as a footnote to a transcribed discussion that took place at the University of Western Ontario in October 1975. It was Samuelson who had suggested that Opie had been the one to mention to Keynes that Fisher had priority in the development of this concept. The footnote to the discussion between Patinkin and Samuelson then spells out how this issue was sorted out some forty years after the events described:

> Since the Conference, Samuelson has discussed this question with Redvers Opie himself, who in reply provided him with a copy of a handwritten note (dated August 5, 1935) which R.F. Kahn sent to Opie at Oxford, and which in its entirety reads:
>
> Guillebaud tells me that you maintain that Fisher, in his *Theory of Interest* (1930), has a definition identical with Keynes' definition of the 'marginal efficiency of capital.' I wonder if you could let me have the reference.
>
> A scribble at the bottom of this note indicates that Opie then referred to 'Fisher pp. 155, 168.'
>
> This note together with the fact that the first record of Keynes' recognition of Fisher's priority in this matter is in a letter which Keynes wrote to Roy Harrod three weeks later, on August 27, 1935 (JMK XIII, p. 549; Patinkin 1976 (a). 80-1) constitute fairly conclusive confirmation of Samuelson's suggestion. Samuelson thinks that he himself may have learned of this incident from Schumpeter.
>
> (Patinkin and Leath 1977, 89, fn.)

Keynes's own reaction to being told others had discovered that Fisher had priority in outlining what Keynes had called the «marginal efficiency of capital» is quite interesting in its own way. In the passage below, which is from the letter to Harrod referred to by Patinkin and Leith in the above quotation, Keynes wrote:

> My definition of the marginal efficiency of capital is quite different from anything to be found in [Marshall's] work or in that of any other classical economist (except for a passage which he makes little subsequent use of in Irving Fisher's latest book).
>
> (CW, XIII, 549)

Thus, whether Fisher had made subsequent use of this concept or not, Keynes accepts that the concept that in the *General Theory* is known as the marginal efficiency of capital is exactly the same as Fisher's «rate of return over cost». In this case, however, and unlike with McCracken, others recognised Fisher had already discussed the same concepts before they had been discussed by Keynes. Keynes therefore acknowledged Fisher's priority which would not in all probability have occurred had Opie not drawn this parallel to the attention of others.

Frank Knight

The issue investigated by Commons dealt with expectations and their effect on asset value. The marginal efficiency of capital, Keynes's version of the same concept, is presented in the *General Theory* in chapter 11. Chapter 12 then follows and deals with «The State of Long-Term Expectations», the chapter in which Keynes presents his distinction between risk and uncertainty.

But until he came to write the *General Theory*, Keynes was not known for the distinction between risk and uncertainty, and had not written specifically on uncertainty until that time. What Keynes had written on was decision making in circumstances where outcomes were unknown, and had, till then, dealt with these issues in terms of actuarial risk. *A Treatise on Probability* (CW, III 1973 [1921]) deals with probability. It is a work that deals with how economic agents come to accept various propositions as valid through the use of probabilistic inference. It does not deal with uncertainty as later discussed by Keynes in the *General Theory* and again in his subsequent essay «The General Theory of Employment» (1937).

The economist known for writing on risk and uncertainty is Frank Knight. In 1921, he published his *Risk, Uncertainty and Profit*, a book with the words 'risk' and 'uncertainty' in the very title, which one would automatically turn to if one had an interest in such issues. It is a work of immense depth, near 400 pages in length. It deals with the contrast between future states of the world in which there are known probabilities that can be associated with particular outcomes and the unmeasurable future in which no such probabilities can be calculated. In Knight's words, «our main concern will be with the contrast between Risk as a known chance and true Uncertainty» (Knight 1933 [1921], 21). With true uncertainty, the probabilities are unknown.

> Business decisions, for example, deal with situations which are far too unique, generally speaking, for any sort of statistical tabulation to have any value for guidance. The conception of an objectively measurable probability or chance is simply inapplicable.
>
> (*Ibidem*, 231)

This is just what Keynes means. Keynes's imagery may be more striking, but the point being made is that for many of the events that those engaged in business must deal with, an «objectively measurable probability» is impossible to calculate:

> By 'uncertain' knowledge, let me explain, I do not mean merely to distinguish what is known for certain from what is merely probable. The game of roulette is not subject, in this sense, to uncertainty. Or, again, the expectation of life is only slightly uncertain. The sense in which I am using the term is that in which the price of copper and the rate of interest twenty years hence, or the obsolescence of a new invention are uncertain. About these matters there is no scientific basis on which to form any calculable probability whatever. We simply do not know.
>
> (Keynes 1937, 213-214)

Of potentially high relevance in bringing Knight's book to Keynes's attention at just the right moment was that it was reprinted in England during the period when Keynes was absorbed in working on his *General Theory*. The first line of the «Preface to the Re-Issue» reads:

> This essay having gone out of print, the London School of Economics has done its author the signal honour of including it as a number in its series of reprints.
>
> (Knight, *op. cit.*, xi)

The preface is dated August, 1933 with the year of publication also 1933.

Keynes was, as one would expect, aware of Knight's work and in the *General Theory* acknowledged having paid at least some attention to what Knight had written (*cw*, VII, 176). But it was the notion of uncertainty, a concept developed to a high level by Knight and distinguished from the concept of risk, that played a large part in Keynes's explanation of why aggregate demand and aggregate supply might equilibrate at levels below full employment. The purpose of making the distinction between risk and uncertainty for Knight was to explain the existence of entrepreneurial profit. Without the uncertainties of the world, pure profit, according to Knight, could not exist. For Keynes, this same distinction was used to explain large fluctuations in investment decisions in different time periods. This is not, therefore, an example of parallel discovery but rather Keynes's drawing upon Knight's distinction to make a point of his own. But it would have been exceedingly unlikely that Keynes would have made this distinction between risk and uncertainty, using exactly the same words and concepts, without having previously read Knight's work. It may well be, as many have argued, that Keynes's approach is superior. More difficult to maintain is that Keynes's came to these words, and indeed to these concepts and their being contrasted in just the way they were, independently of their original discussion by Knight.

Joseph Alois Schumpeter

The last required element in the chain of argument presented in the *General Theory* is the liquidity preference theory of interest in which the crucial aspect is that interest rates are determined solely in the market for money, in complete isolation from the real dimensions of the economy. If interest rates are able to adjust to equilibrate savings and investment, irrespective of how high the level of saving becomes, there can be no deficiency of aggregate demand. But if interest rates are instead a monetary phenomenon entirely separate from the real economy, rates of interest can diverge from whatever rates are required to have investment soak up all of the available savings. It is a crucial aspect of the Keynesian model. It is therefore important to note Schumpeter's almost off-handed remark made as he ends his review of the *General Theory*:

> I wish however to welcome his purely monetary theory of interest which is, as far as I can see, the first to follow upon my own.
>
> (Schumpeter 1999 [1936], 183)

Schumpeter does immediately note he disagrees with the way in which Keynes has used this concept, but what is important here is that Schumpeter believes he has recognised the theory of interest that he had developed has found its way into the *General Theory*. Schumpeter is not claiming he and Keynes had had identical positions arrived at independently. Schumpeter is arguing he had devised a monetary theory of interest and Keynes has adopted his ideas for his own purposes. Because whatever else may be the case, the theory of interest found in the *General Theory* is almost exactly the same if not actually identical to the theory of interest found in Schumpeter's *The Theory of Economic Development*, published in an English translation in 1934 having originally been published in German in 1911.

The essence of Schumpeter's theory of interest is simply and directly stated: «interest attaches to money and not to goods» (1934, 158). As he elaborates:

> It is true that goods and not 'money' are needed to produce in the technical sense. But if we conclude from this that money is only an intermediate link, merely of technical importance, and set about substituting it for it the goods which are obtained with it and for which therefore in the last analysis interest is paid, we at once lose the ground from under our feet. Or more correctly expressed: we can indeed take a step or even a few steps away from the money basis into the world of commodities. But the road suddenly ends because these premiums on commodities are not permanent – and then we see at once that this road was wrong, for an essential characteristic of interest is that it is permanent. Therefore it is impossible to pierce the money veil in order to get to the premiums on concrete goods. If one penetrates through it one penetrates into a void. *Thus we cannot move away from the money basis of interest*.
>
> (*Ibidem*, 184; italics added)

Once again, the purpose for which the theory is employed is different. Schumpeter used the monetary theory of interest rate determination to explain that only in a dynamic growing economy would a positive interest rate come into existence. Keynes used the same theory to explain how interest rate determination takes place in isolation from the real economy allowing rates to equilibrate above the rate needed to ensure all savings are invested. Keynes's aim was to sever interest rates from the real economy as part of an overall analytical structure that would demonstrate output in total might equilibrate at less than full employment. If increased saving does not necessarily result in a fall in interest rates, Keynes would then be able to demonstrate there is no automatic mechanism to ensure all savings end up channelled into investment. A monetary theory of interest enabled him to reach this conclusion. Keynes makes this point in a letter to Harrod dated 27 August 1935:

> My theory is essentially not a theory that the rate of interest is the factor which, allowing for changes in the level of income, brings the propensity to save into equilibrium with the inducement to invest. My theory is that the rate of interest is the price which brings the demand for liquidity into equilibrium with the amount of liquidity available. It has nothing whatever to do with saving.
>
> (*CW*, XIII, 550)

Replacing «liquidity» in the above passage with «money» renders the statement identical to the argument made by Schumpeter in 1934. Schumpeter, in reading the *General Theory* in 1936, believed he had recognised his own creation in what Keynes had done. *The Theory of Economic Development* is a work one would expect anyone with an interest in money and the theory of the cycle to have closely read upon publication.

Foster and Catchings

In examining Keynes and his contemporaries, there is one set of economists whose absence rather than their presence is remarkable given their pre-eminence as writers dealing with the same issues Keynes dealt with in the *General Theory*. The best known economists amongst pre-Keynesian writers on aggregate demand deficiency and Say's Law were William T. Foster and Waddill Catchings. Gleason, in his 1959 reappraisal of their work, wrote:

> Since their formulation during the 1920's, the business-cycle theories of William T. Foster and Wadill Catchings have been subjected to frequent analysis and vigorous criticisms. At the time of their writings, these men were classed among the economic heretics who had dared assault the classical fortress of Say's Law. Their relative lack of formal training in economics and the popular style of their writings may have led their contemporaries to take them less seriously than the actual substance of their doctrines warranted. The advent of Keynesian economics, however, has led to an increasing respect for the insights of forerunners of the 'Keynesian revolution' and a better understanding, in terms of post-Keynesian tools of analysis, of the reasoning behind their conclusions.
>
> (Gleason 1959, 156)

Gleason goes on to note the generally unrecognised similarities between their work and the arguments found in the *General Theory*:

> The remarkable extent to which they anticipated the Keynesian theory of income determination and post-Keynesian growth economics has not been fully appreciated.
>
> (*Ibidem*, 157)

Comparison in the literature is typically made between Keynes and Hobson since this is the comparison Keynes made himself, yet Gleason sees Hobson's work as quite different from Keynes's. It is the similarities between Keynes on the one hand and Foster and Catchings on the other that Gleason sees as strong and striking. In particular, he noted that «to Foster and Catchings, the critical relationship was not between saving and consumption [as found in Hobson] but between saving and investment» (*ibidem*, 160). That is, Foster and Catchings adopted the same approach that would later be taken by Keynes himself. Thus, in turning to look at the similarities between Foster and Catchings in comparison with Keynes, Gleason sees a remarkable level of overlap in contrast with the lack of congruence between Keynes and Hobson:

> The similarity of certain aspects of the theories of Foster and Catchings to the later views of Keynes is evident from the preceding discussion. Like Keynes, they stressed the independence of decisions to save and invest. They recognized that cyclical instability could result from failure of decisions to invest to offset decisions to save. They were also aware that stability was possible at less than full-employment levels

and that chronic unemployment of resources was a serious economic problem. 'Those who regard stability as the goal appear to overlook the fact that business can be just as stable in the midst of poverty as in the midst of plenty.' … 'Even in years of greatest prosperity, industry falls far, far short of using its resources, human and material, to produce all that might readily be produced.'

(*Ibidem*, 161)

Keynes it need hardly be said did not agree with all that Foster and Catchings had written but where he did the parallels are striking. Moreover, Keynes was well aware of their writings and had previously discussed their work in the *Treatise* although apparently at the time misunderstanding their theoretical intent. As Gleason wrote:

Keynes himself did not mention Foster and Catchings in the *General Theory*. In the *Treatise on Money*, however, he dealt with the theories of Foster and Catchings, Hobson and Bouniatian as a group.[1] In this discussion he showed that he was unaware at the time that Foster and Catchings, unlike Hobson, treated decisions to save and decisions to invest as largely independent of each other and attached little importance to the distribution of wealth as a contributor to the business cycle.

(*Ibidem*, 161-162)

The independence of decisions to save and decisions to invest was, of course, a major feature of the *General Theory*. And while it is true that Keynes did not mention Foster and Catchings in the *General Theory* itself, they were mentioned in an early draft. Indeed, they are mentioned in that same extended footnote in which Keynes cites McCracken. In referring to Marx's M-C-M′ formula, Keynes wrote:

Marx and those who believe in the necessary exploitatory character of the capitalist system, assert the inevitable excess of M′; whilst Hobson, or Foster and Catchings, or Major Douglas who believe in its inherent tendency towards deflation and under-employment, assert the inevitable excess of M.

(*CW*, XXIX, 82, fn.)

Keynes was thus perfectly aware that Foster and Catchings argued that economies had an «inherent tendency towards deflation and under-employment». He would have known it prior to his commencing work on the *General Theory*, but to whatever he knew then, he would have added the knowledge that came from reading McCracken's *Value Theory and Business Cycles*. There he would have found an entire chapter (ch. XII) devoted to the writings of Foster and Catchings. And while one might argue that in that chapter, McCracken was strongly critical of their arguments, it is nevertheless the case that it is in this chapter that the phrase «supply created its own demand» is found.

[1] Found in KEYNES, *CW*, V, 160.

McCracken's chapter refers to a number of Foster and Catchings' books and to an article reprinted from a 1926 issue of the «Atlantic Monthly». One cannot say with certainty that Keynes read any or all of these works while writing the *General Theory* but it would have been odd, given his intense interest in these issues, if he had not read at least some. They were authors he had cited in 1933 and their 1928 work on *Profits* is cited in the *Treatise*. It would be inexplicable had he not looked at their works while writing a book of his own on the very same issues they had been discussing for more than a decade.

There is one other matter that might be noted. In the footnote in which Keynes cites McCracken, he refers to what he describes as «the heretics of the past hundred years» (CW, XXIX, 81, fn.). The word «heretics» also appears at the end of chapter 23 of the *General Theory* where Keynes refers to «the brave army of heretics» who had «preferred to see the truth obscurely and imperfectly rather than to maintain error» (CW, VII, 371). In the *General Theory*, Keynes specifically names five such heretics, of which two are Major Douglas and John Hobson. In the McCracken footnote quoted above, those who found deflation inevitable were listed as «Hobson, or Foster and Catchings, or Major Douglas». It is thus an interesting question why Foster and Catchings, worthy heretics in 1933, had been dropped from the list by 1936. Indeed, why McCracken is not on this list, and perhaps Commons as well, are questions that might well be asked.

Fred Taylor and Say's Law

The evidence that Keynes was looking at unknown secondary sources is the manner in which he used the term Say's Law. It is almost a throwaway, which he first defines, not as «supply creates its own demand» but as the proposition «that the aggregate demand price of output as a whole is equal to its aggregate supply price for all volumes of output» (CW, VII, 26). It requires one to read the developmental arguments of the *General Theory* backwards to connect Say's Law with its characteristic phrase (see Kates 1998, 11-14). But by the time he had come to write his 1937 reply to critics, he could state his definition simply: «Say's Law that supply creates its own demand» (CW, XIV, 123).

But in doing so, what Keynes had done was bring together two statements from American authors. As already discussed, «supply creates its own demand" is from the work of Harlan McCracken. The term Say's Law is from another American economist, in this case Fred M. Taylor, long-time Professor of Economics at the University of Michigan from 1892 until 1929. And in this instance, there can be no doubt that Taylor was the originator of the term. The chapter where the phrase «Say's

Law» is found is titled «Say's Law» and is a discussion of the classical principle that demand and supply in aggregate are one and the same. On this matter, Taylor wrote:

> Among the fallacious notions in popular thinking that have gained very wide currency are to be found a number which grew out of misconceptions as to the real source of the *general or total demand for goods*, and as to the methods by which that demand is increased or diminished. Several types of these fallacious notions may be cited. Thus, governmental improvements of all kinds, including even those of questionable value, are often supported by business men and others on the ground that such improvements increase the total demand for goods.
>
> (Taylor 1925, 196)

Taylor traced the refutation of this argument back to the early classical writers, and to J.-B. Say in particular. It was for this reason, he wrote, that he had given the principle showing the identity of aggregate supply and aggregate demand the name «Say's Law». The first sentence of the passage, given subsequent events, is especially ironic:

> The points just brought out with respect to the relation between demand and the output of goods are so evident that some will consider it scarcely legitimate to give them the dignity derived from formal statement. On the other hand, the continued prevalence throughout the larger part of the community of the fallacious notions which these considerations are designed to correct seems to furnish ample ground for any procedure which gives these points adequate emphasis. I shall therefore put the proposition we have discussed in the form of a principle. *This principle, I have taken the liberty to designate Say's Law*; because, though recognized by many earlier writers, it was particularly well brought out in the presentation of Say (1803).
>
> (*Ibidem*, 201; italics added)

The term Say's Law is thus 20th century in origin and comes from the pen of an American economist, F. M. Taylor, who had coined the term. It is a term that became part of the discourse of economics on the American side of the Atlantic as the 1928 quotation from Frank Knight at the start of this article clearly shows. That simple statement demonstrates that the issues and arguments that would show up in the *General Theory* less than a decade later were at the time already an integral part of the economic conversation amongst American economists.

The term Say's Law was common currency in the United States during the 1920s and 1930s. How it came to the attention of Keynes is unknown, although McCracken is a possible conduit.[1] But one way or an-

[1] It is stated in the contents page of *Value Theory and Business Cycles* (McCracken 1933, xi) as well as in the chapter on «Voluntary Failure of Demand» (*ibidem*, 149, fn.), the chapter in which the contrast between Ricardo and Malthus reaches its crescendo. Of course, to the extent that McCracken is considered unlikely to have been the conduit of these words to Keynes, the more it must be the case that Keynes was reading other American writers of the time since he had to have taken these words from somewhere.

other a conduit was needed from Taylor to Keynes. Keynes did not come up with this term himself.

Drawing Some Conclusions

Most of what has been discussed in this article is contrary to the received opinion on the steps Keynes took between the *Treatise on Money* completed in 1930 and the *General Theory*, published in 1936. But to understand the way in which Keynes's ideas developed, one must first understand what the message of the *General Theory* was. Unless one understands that the *General Theory* was almost entirely intended as a refutation of Say's Law, seeing the *General Theory* as a coherent whole becomes exceedingly difficult.[1]

One must next recognise that Keynes kept these matters to himself during the early years of his writing the *General Theory*. Based on what we know, none of his associates in Cambridge or elsewhere were let in on this project, with the likely exception of Piero Sraffa. Keynes, of course, continued to discuss his *Treatise*, and the members of the «Cambridge Circus» along with others no doubt made valuable criticisms during the period 1931-1932.[2] But all of this took place before he had discovered Malthus in October/November 1932. These early discussions and criticisms appear to have contributed little if anything to the nature or content of the book he was to write next. As the example set by McCracken demonstrates, so far as the existing record shows, Keynes did not discuss any of this with his close associates. McCracken's role had been large and significant, but until the discovery of Keynes's letter, and the recognition that the phrase «supply creates its own demand» was taken directly from McCracken's book, it would have been near impossible to demonstrate the pivotal role McCracken had played.

The paper also makes evident that there was a significant role played by American economists in the development of Keynes's ideas. Along with his reading of McCracken, the use of the phrase Say's Law in so natural a way indicates a familiarity with American business cycle literature. The parallels with Commons and Fisher, both of whom Keynes

[1] Although Keynes was at pains to argue that his intent was to refute Say's Law, to take him at his word is considered almost an absurdity (cf. Eltis 2005, 685). For a more judicious understanding of Keynes and Say's Law see Felix 1995, 139-143.

[2] I will here put on the record something told to me by Austin Robinson in the Cambridge Economics Department tearoom in 1991 which I have not seen written anywhere else. What Robinson said was that the «Circus» was formed by those who were using the *Treatise* as a teaching text. They came together to puzzle out amongst themselves what Keynes was trying to get at in the book so that they could then explain it to their students.

had read and both of whom had formulated economic concepts that were later found in the *General Theory*, make it evident that Keynes had paid close attention to American authors. Till now there has been virtually no recognition of an American influence on the *General Theory*. This view will need to be revisited and revised.

The present article provides a discussion of sources of Keynes's ideas that he took on board during the years 1933 and 1934 when he published almost nothing and for which his reading list is largely unknown. That he with certainty read McCracken without letting others know shows a desire to keep these matters to himself. It also suggests a pattern of behaviour. Writing as he was about the nature of the economic downturn that the world's economies were then in the midst of, it is equally certain Keynes would have monitored what others had published. The present article has drawn attention to a number of such works and the evidence indicating that these were indeed amongst the economists Keynes was reading and whose theoretical writings were incorporated into the *General Theory* he was then in the midst of writing.

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