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SRAFFA AND KEYNES: DIFFERENCES AND SHARED PRECONCEPTIONS[1]

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The relationship between the work of Piero Sraffa and John Maynard Keynes, the two most influential critics of neoclassical economics, is complex and controversial. The two knew each other and each other's work from the 1920s when they shared an interest in postwar monetary policy, and Keynes arranged for Sraffa to live and work in Cambridge [cf. POTIER (1991), pp. 8-12, 44ff]. Keynes – on Francis Edgeworth's recommendation – encouraged Sraffa to prepare his 1925 *Sulle relazioni fra costo e quantità prodotta* for publication as the *Laws of Returns under Competitive Conditions* for the «Economic Journal» (1926), helped to start Sraffa on the project of editing Ricardo's *Works and Correspondence* (1951-73), and saw an early formulation of what more than three decades later would become the *Production of Commodities by Means of Commodities* [SRAFFA (1960), p. vi]. Sraffa translated Keynes's *Tract on Monetary Reform* into Italian, defended Keynes's *Treatise on Money* against Friedrich von Hayek in the process critiquing money neutrality, participated in the "Cambridge circus" that discussed the *Treatise*, attended Keynes's lectures in which the ideas for *The General Theory of Employment, Interest and Money* were developed, and was instrumental in developing the commodity rates or own-rates of interest analysis that later occupied Chapter 17 of Keynes's book (though not as Sraffa had intended). In addition, the two were linked together through a number of key individuals in interwar Cambridge economics and philosophy, notably including Ludwig Wittgenstein, Maurice Dobb, Richard Kahn, Frank Ramsey, Bertrand Russell, and Austin and Joan Robinson. Yet their later works, *The General Theory* and *Production of Commodities* lack obvious

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points of contact, and there is little evidence that by the end of Keynes's life they had much in common. Skidelsky, for example, states:

> While one can say a great deal about Keynes and a great deal about Sraffa, there is surprisingly little to say about Keynes and Sraffa. They were both economists; they were very good friends, they were both in Cambridge for most of the interwar years; their ideas were striking, even revolutionary. But these ideas had few points of contact with each other [(1986), p. 1].

Others, however, have argued that, despite important disagreements between them, a satisfactory alternative to neoclassical economic theory may involve combining the classical theory of value, as in Sraffa's prices of production analysis, and Keynes's theory of effective demand [e.g., Eatwell and Milgate (1983)]. How are we, then, to make sense of the relationship between Sraffa and Keynes? This paper attempts to create an interpretive framework to address how the works of Sraffa and Keynes relate to one another by doing two things.

The first half of the paper concentrates on important differences between the two by approaching their thought from the perspective of their distinct interpretations of the economic thought that preceded them. Just as one can begin to understand the relationships between contemporary post-Keynesian and neo-Ricardian critics of neoclassical economics according to how their thought relates to the work of Sraffa and Keynes, so one can also begin to understand the relationship between Sraffa and Keynes's thought according to how they each understood the work of their predecessors. The discussion here, moreover, takes a particular perspective on this investigation by asking how Keynes was mistaken in his understanding of classical economics. Keynes wrote a number of essays on figures in the history of economics (1933), but no one would say that he was as conscientious a scholar of the subject as Sraffa. Sraffa was perhaps the most careful and painstaking of all historians of economic thought. Keynes was impressionistic and often insightful in works that were largely biographical in nature. Thus Garegnani (1978-79) has persuasively argued that Keynes, in criticizing Say's Law as it was employed in the neoclassical economics of his time, extended similar criticisms against the Law's earlier, classical proponents, who in fact operated with a different conception of the Law.

Using this entry point, Section One of the paper distinguishes how the two differed in their interpretations of classical economics. Section Two of the paper then distinguishes the views of the two on Marshall, who argued for continuity between classical and neoclassical economics. The argument of this section is that because Keynes was insufficiently critical of Marshall's continuity thesis, he did not

appreciate the fundamental differences between classical and neoclassical economics on the theory of value. An implication is that Keynes's strategy in *The General Theory* for criticizing the neoclassical, Say's Law conception of the economy as tending to produce full employment of labor encounters important objections that derive from Sraffa's later, classically-inspired critique of marginalist value theory.

The second half of the paper attempts to identify a set of philosophical preconceptions shared by Sraffa and Keynes regarding the necessity of seeing economics as being embedded in a wider social-historical process. Neoclassical economics, especially in the eyes of its more recent practitioners, may be characterized as a set of formal tools of analysis that may be used in any and every social-historical situation. It denies that economic concepts reflect their wider context, are in part a product of that context, and, perhaps most importantly, take on meaning according to non-economic matters associated with context. Sraffa and Keynes, for all their later theoretical differences, seem to have agreed that economics is contextual and historical. Indeed, though they had very different political views, their conception of economics was that of political economy, the framework of classical economics that made the economy part of a wider social-historical process.

In Section Three of the paper, then, an attempt is made to map out common ground between Sraffa and Keynes in connection with shared preconceptions about the relation of economics to the rest of society. Here use is made of the philosophical views of Antonio Gramsci and Ludwig Wittgenstein to suggest that the idea that there exist relatively distinct historical social formations underlies both Sraffa and Keynes's thinking about the social-historical embeddedness of economics. Gramsci appears to have influenced Sraffa in this regard. There also appear to be points of tangency between Wittgenstein and Keynes's thinking they may be interpreted in a similar light. Section Four, the concluding section of the paper, then addresses problems in giving this philosophical-historical framework an economic interpretation, especially where this concerns debate over short-period versus long-period.

1. Sraffa and Keynes's differences on classical economics

Keynes characterized the classical school of economics as those «*followers* of Ricardo» who «perfected the theory of Ricardian economics», where this involved reliance on Say's Law to explain the full-employment tendency of the economy, and included J. S. Mill, Mar-

shall, Edgeworth, and Pigou as its principal representatives. Keynes believed that he was extending Marx's characterization of the classical school as including Ricardo, James Mill, and their predecessors whose work had culminated in Ricardian economics. He admitted that he was «perhaps perpetuating a solecism» in his extension of the term, but thought it still justified on the grounds that what he termed the «*classical* theory of the subject» had dominated the economic thinking «of the governing and academic classes of this generation, as it has for a hundred years past» [Keynes (1936), p. 3].

It is true that important elements of a «classical theory of the subject» still prevailed in Keynes's time in that his immediate predecessors believed, as did the classicals, that supply created its own demand, or «that the whole of the costs of production must necessarily be spent in the aggregate, directly or indirectly, on purchasing the product» (p. 18). But it is not true that the particular mechanism by which Say's Law operated for Marshall and Pigou was the one embraced by Adam Smith, Ricardo, J.-B. Say, and James Mill, the original defenders of the Law. Keynes states that an important corollary of Say's Law, especially as advanced by the early Marshall, was «that any individual act of abstaining from consumption necessarily leads to, and amounts to the same thing as, causing the labour and commodities thus released from supplying consumption to be invested in the production of capital wealth» (p. 19). For Marshall, he believed this meant that *separate decisions* to save and invest on the part of different individuals were linked by a market mechanism, and that this linkage occurred through the instrumentality of the *interest rate*. However, this was not the view of how supply created its own demand held by Ricardo, Say, and Mill.

In fact, Smith, Ricardo, Say, and Mill, and indeed also Malthus who Keynes saw as an important critic of Ricardian economics, always identified decisions to save and invest, and did not see them as being carried out by different individuals, much less as being mediated by means of the interest rate. Not only did they believe that anyone who saved necessarily used their saving to further employ productive labor, but they also generally ignored any passage of time between the realization of savings and their subsequent use. Keynes focused upon Malthus, because Malthus was concerned with the level of saving relative to the demand for output, and more generally «with what determines the *volume* of output», as compared to Ricardo who was specifically interested in the distribution of output as a means of explaining growth over time [Keynes (1933), p. 97]. Keynes was thus correct in recognizing that Malthus grasped that 'unproductive' consumption by landlords and the wealthy might have implications for

effective demand problems associated with any imbalance between saving and investment. But still he miscast Malthus in thinking that his «defect lay in his overlooking entirely the part played by the rate of interest» (p. 102), since Malthus never saw the interest rate as a factor influencing the demand for output.

Even less did Ricardo see the interest rate as the «balancing factor which brings the demand for saving in the shape of new investment ... into equality with the supply of saving» [Keynes (1936), p. 165]. Ricardo was principally interested in the theory of profits, and saw the interest rate as a device of secondary importance that permitted the re-distribution of profits among capitalists. Indeed he was less interested in the capital allocation role of the interest rate than in how differences in profits served to allocate capital across sectors of production to equalize rates of profit. Moreover, profits were a residual or surplus form of income for Ricardo, which meant that they were the result of a different sort of social process than was involved in the marginalist interest rate determination process that Keynes was intent upon criticizing in Marshall and Pigou. For Ricardo, capitalists operated in the sphere of production, hiring workers, providing them with what they needed for their work, and claiming the surplus product that remained after restoring their capital. Keynes thought in terms of a different social process within the sphere of exchange whereby individual savers combined to generate an aggregate supply of savings and individual investors combined to generate an aggregate demand for savings.

Sraffa (1951), by most accounts, gives an especially clear account of Ricardo's residual profit analysis in terms of the corn-ratio theory of profits Ricardo developed in his 1815 essay on profits, and then redeveloped in labor value terms in the *Principles*. In the former,

> The rational foundation of the principle of the determining role of the profits of agriculture ... is that in agriculture the same commodity, namely, corn, forms both the capital ... and the product; so that the determination of profit by the difference between total product and capital advanced, and also the determination of the ratio of this profit to the capital, is done directly between quantities of corn without any question of valuation [(1951), p. xxxi].

In the heterogeneous commodity world of the *Principles*, «it was now labour, instead of corn, that appeared on both sides of the account», so that the rate of profits was determined by «the ratio of the total labour of the country to the labour required to produce the necessaries for that labour» (p. xxxii). One of the conclusions that Sraffa reached with this analysis was that Ricardo's distribution theory was

entirely different in nature from marginalist value theory. Ricardo reasoned in objective cost of production terms, and thought commodities possessed 'natural' values, that have more recently been characterized as long-period centers of gravitation [cf. e.g. HARCOURT (1981)]. Further, distribution concerned a division of the social product according to principles specific to the historical experience of different classes: the wage was determined by laborers' level of subsistence, rent was due to the differential fertility of land or the distance from the market, and profit was the residual value that accrued to capitalists who organized production. Individuals on this conception were best understood as representatives of classes, with their behavior reflecting the social nature of the classes to which they belonged.

In marginalist value theory, which developed with neoclassical economics, distribution results from the forces of supply and demand for factors of production summed over decision-making of a large number of atomistic, classless individuals. Capital and labor are factors whose demand is responsive to their prices, the interest rate and the wage rate, and competition among the owners of capital and labor lowers their prices until their entire supplies are employed. It was in this equality between demand for and supply of factor services that Keynes mistakenly located the classical, rather than the neoclassical, Say's Law principle of a tendency to full employment of factors of production. His own *General Theory* approach substituted a money supply-liquidity preference account of interest rate determination, and argued that labor was unable to influence its real wage. Together these arguments left open the possibility that savings and investment might equilibrate at less than full employment. Not surprisingly, then, Keynes hoped to find hints of at least an alternative theory of the interest rate in Malthus, the one classical economist who seemed to be interested in the relation of savings to output determination.

Relatedly, in mistakenly thinking that the classicals used what was in fact Marshall and Pigou's understanding of Say's Law with the interest rate as a balancing factor, Keynes also concluded that the classicals had also assumed market forces tended to generate full employment. However, one does not find such an assumption in the works of either Ricardo or Malthus, who debated whether there was always sufficient means in the aggregate to purchase all output produced, but still allowed that workers might remain unemployed even if it did. Ricardo, in fact, when he turned in the third edition of the *Principles* to the likely impact of machinery introduction on employment, specifically allowed that labor expelled from production might become redundant were capitalists to expend their increased net revenues «on fine clothes, or costly furniture; on carriages, on horses, or in the purchase of any other luxuries,» rather than giving employment to labor [RICARDO (1951), vol. I, p. 393).

Thus, where Keynes and Sraffa chiefly differed in their interpretations of the classicals was over value theory. Keynes operated in terms of Marshall's subjective value, supply-and-demand apparatus, and reasoned that since this apparatus produced Say's Law, full-employment tendencies for Marshall and Pigou, Say's Law classical economists must have reasoned in similar terms. In his view, Ricardian economics was essentially's Marshall's «theory of Value and Production ... concerned with the distribution of a *given* volume of employed resources between different uses and with the conditions which, assuming the employment of a quantity of resources, determine their relative rewards and the relative values of their products». In contrast, his own theory was intended to explain «what determines the *actual employment* of the available resources» (p. 4), such that were «our central controls [to] succeed in establishing an aggregate volume of output corresponding to full employment as nearly as is practicable, the classical theory» – by which he meant Marshall's supply-and-demand theory – «comes into its own again from this point onwards» (p. 378).

Sraffa, in contrast, threw over marginalist value theory altogether. That approach determines prices and quantities in terms of the initial endowments of the economy (including the endowment of "capital"), consumer preferences, and technical alternatives of production, and seeks to explain the economy in terms of the principle of scarcity. Classical value theory rather explains prices and the rate of profits in terms of the technical alternatives of production, the size and composition of the social product, and the real wage, and seeks to explain the economy as a system capable of reproducing itself. Such a conception was considerably removed from the one Keynes found in Marshall.

2. SRAFFA, KEYNES, AND MARSHALL

Keynes's view of Ricardo, of course, came in good part from Marshall, who claimed, against Jevons, that there was clear continuity of development from Ricardo to marginalist supply-and-demand value theory (1920, Appendix I). Marshall reasoned that, since Ricardo had said all commodities had to be useful, he only neglected to develop a utility analysis of demand, because he had thought it obvious to everyone. Marshall also cited Ricardo's differential rent theory as evidence that Ricardo was a forerunner of marginalist reasoning. Supporting this interpretation, Jacob Hollander (1904) and Edwin Can-

nan (1929) argued that Ricardo was moving away from his labor value analysis by the time of the third edition of the *Principles*. Sraffa later dispelled both of these misconceptions in the argument of his «Introduction» to Ricardo's *Principles* that demonstrated that Ricardo did not weaken in his commitment to a labor value analysis that bore no affinities to Marshall's theory [(1951), esp. pp. xxxvii-xl]. But either Keynes was not very familiar with Sraffa's argument, or it came to him after he had made up his mind about Ricardo and the classicals[2].

A more serious matter, however, is that Keynes was apparently unaware of the implications for the neoclassical theory of capital of Sraffa's argument in the 1928 version of what would later become the *Production of Commodities*. For Sraffa, "capital" is a set of produced means of production, the prices of which may increase or decrease when income distribution changes. In *The General Theory*, Keynes accepted the downward sloping investment demand function (if not a marginalist explanation of it), as well as the principle that in competitive equilibrium the real wage necessarily equaled the marginal product of labor. But an implication of Sraffa's view of capital is that the inverse relation between the rate of interest and the amount of investment, central to Marshallian theory, did not obtain. More generally, as would become apparent in the 1960s capital controversy partly stimulated by the publication of Sraffa's book, marginal productivity theory and the idea of downward sloping factor demand functions could not be incorporated in a general theory of value and distribution. This meant that even with free competition for factors of production there was no inherent tendency towards full employment in a market economy. Though the interest rate or the real wage might be flexible, this did not imply that investment would rise nor more labor be employed. In effect, then, Keynes's chief targets in criticizing Marshall's Say's Law economy were illusory. His main tools, liquidity preference and labor's inability to influence the real wage, were not needed to argue that the economy failed to produce full employment, because the neoclassical mechanisms used by Marshall and Pigou to accomplish this were inherently flawed.

Sraffa's early 1925 and 1926 papers on Marshall did not argue these conclusions, but rather attacked Marshall's partial equilibrium analysis as being incoherent or inapplicable except under special conditions. An implication of his later critique of orthodox capital theory is that wages and profits cannot be determined symmetrically in terms

[2] Gary Mongiovi points out that Keynes had studied with Marshall, and completed his biographical essay on Marshall in 1924, while Sraffa's views on Ricardo probably did not come into clear focus before 1927-8.

of supply and demand for the factors labor and "capital". In his 1926 paper Sraffa noted that Marshall assumed «the conditions of production and the demand for any commodity [could] be considered ... independent, both in regard to each other and in relation to the supply and demand of all other commodities» [Sraffa (1926), p. 538]. Ruling out constant costs, which would have eliminated a role for demand in determining prices, and opened the door to classical, cost of production models, Marshall supposed that the effects on costs of diminishing and increasing returns in any industry were confined to the industry under examination. Sraffa showed that this involved a misrepresentation of the nature of diminishing and increasing returns, and argued that variation in the quantity produced in an industry generally sets up forces which act not only on costs in that industry but also on the costs of other industries. Industries, then, were generally interdependent in costs, and, though the subject was complex, he concluded that it was either necessary to forgo partial equilibrium analysis, and «examine the conditions of simultaneous equilibrium in numerous industries» (p. 541), or «abandon the path of free competition», and turn to the examination of monopoly (p. 542).

Sraffa thus rejected Marshall's view that the laws of supply and demand could be explained in terms of symmetrically opposed, atomistically independent forces linking marginal utility and marginal productivity. Not only did the different forces acting on costs operate across industries, but these also interacted with demand factors. Keynes, however, proceeded in *The General Theory* as if much of Marshall's apparatus was at least correct in outline. Indeed, as noted above, it was his view that were effective demand to be such that the economy was at full employment, then the traditional (marginalist) theory of how resources were allocated in production fully applied. Clearly, then Sraffa and Keynes lacked common ground on the subject of value determination. What other points of contact might there then be between their respective ideas? The following half of the discussion here explores points of contact in their underlying philosophical views.

3. Economics' social-historical embeddedness

Keynes's attachment to marginalist value theory does not imply that his focus on the determinants of output and employment was misplaced. Indeed, Sraffa's criticisms of marginal productivity theory only reinforce Keynes's argument that full employment tendencies are absent in competitive economies, and that some theory of output determination is needed. How, then, might we link classical value theo-

ry and Keynes's principle of effective demand? In Keynes's theory of effective demand the principal factors that explain the point of effective demand are the propensity to consume and the marginal efficiency of capital. Were the latter, in combination with liquidity preference, not to explain the level of investment, on account of problems in the neoclassical conception of capital, then some other account of what led firms to acquire capital goods would need to be provided. Keynes, in fact, offered elements of such an account in the twelfth chapter of *The General Theory* where he discussed conventions and animal spirits. Here he put aside his Marshallian marginal efficiency analysis based on atomistic choice to consider a richer approach to the determinants of investment that depended upon having a grasp of the historical social context surrounding investment. It is here, it thus seems, in Keynes's alternative, more historically and socially informed approach to investment, that we may begin to look for points of tangency with Sraffa's thinking.

Let us first, however, consider the understanding of the social process required if one is to make use of Sraffa's classical approach. *Production of Commodities* begins with an analysis of a reproducible subsistence economy, and then moves on to the investigation of an economy producing a surplus in which the distribution of income influences the economy's mode of reproduction. This analysis intertwines an economy's network of exchange relations with its distribution of the society's surplus between different classes. But it is fair to say that having an adequate understanding of how a society's surplus is distributed also requires one to understand a wide variety of social-historical phenomena and processes associated with such things as that society's political structure, culture, system of law, ideology, institutions, and recent experience.

Consider how the classical approach to the explanation of value and distribution differs from the neoclassical approach. First, in the case of the latter, factors of production are supplied by atomistic individuals bereft of class and all other social distinctions, so that analysis of distribution lacks any essential links to a society's past history and character. Second, since in a classical model the principles explaining provision of capital goods and labor are heterogeneous, their understanding requires we grasp how society is constituted as a specific social-historical process at any given point in time. Third, since on the classical view one distributive variable must be taken as given, the analysis must always be given an anchor in a particular historical conjuncture of events and circumstances that reflect a balance of social forces between classes over division of the surplus.

Turning to Keynes's Chapter Twelve considerations used to explain investment, we find a similar, classical sort of embedding of economics in a particular social-historical context. When Keynes asked how the «daily, even hourly, revaluations of existing investments» are carried out by investors [(1936), p. 151], his answer was that the process depended upon a convention that «the existing state of affairs will continue indefinitely, except in so far as we have specific reasons to expect a change» (p. 152). But grasp of «the existing state of affairs» and being able to detect «reasons to expect a change» require that one know something about public opinion, political developments, cultural attitudes, the mood of other investors, and so on, all of which reflect the status of a society at a particular point in time.

Suppose that Keynes's conception of a convention was of a structure of interdependent expectations on the part of different individual investors, whereby what constitutes a good or bad investment for each individual is in large part «governed by the average expectation of those who deal on the Stock Exchange as revealed by the price of shares» (p. 151)[3]. This average expectation, together with the range of individual expectations from which it emerges, was not in Keynes's mind based on any underlying essentials regarding technologies, endowments, or preferences, but rather simply referred to individuals' mutual views of each other's judgments about investment opportunities. Indeed, in trying to capture the character of stock market speculation as it affected investment, Keynes likened investment to a newspaper beauty contest in which contestants attempt to guess who other contestants will judge the most beautiful, rather than who in fact possesses the attributes of beauty. On this view, average expectation simply records, on any given historical occasion, a balance of opinion on the part of investors regarding which investment other investors may favor. This makes investment an inherently social phenomenon, whose understanding then depends on our understanding of an array of social forces impinging on investors.

Now certainly Keynes had in mind here a quite different sort of social process than alluded to above in connection with Sraffa's emphasis on classes and their historical relationships. Keynes's agents are

[3] Elsewhere in *The General Theory* this view can also be seen at work. In no instance is as much attention given to the notion as in the twelfth chapter on long-term expectations, though there are interesting things said about conventions as structures of expectations in connection with bonds and the rate of interest (pp. 202-204), relative money-wages and wage bargaining (pp. 264ff), producer price expectations (pp. 46-51), and the subjective factors influencing consumption (pp. 107-112). See DAVIS (1994, esp. ch. 5) for a longer discussion of conventions as structures of expectations in Keynes.

individuals principally understood in terms of their psychological propensities and attitudes who occupy various locations in business and financial markets, while Sraffa's class agents are better understood in terms of the dynamics of large economic constituencies and the historical oppositions between capital and labor. Nonetheless, for both Keynes and Sraffa, understanding the behavior of economic agents begins with knowing something about the social-historical circumstances in which they operate. For Keynes, individuals' psychological propensities and attitudes may be manifested in varying degrees and forms in different investors, but conventions anchor the behavior of these individuals by structuring individual expectations about an historically inherited average expectation[4]. For Sraffa, economic classes may confront one another over a whole range of possible issues and relations, but that we must take as given one distributive variable, say the average real wage, anchors the system of prices, the structure of consumption, and terms of conflict over distribution of the surplus.

Thus both Sraffa and Keynes required that economic theory reference the social-historical context in which an economy being studied was thought to operate. Moreover, they understood the social-historical context of the economy as a set of highly related social relationships and activities across society's different domains of politics, culture, law, and so on that needed to be understood as a distinguishable historical period or epoch[5]. In effect, that there is a social-historical context to consider when one investigates the economy leads us to see the time space of our analysis as having roughly defined boundaries that mark it off from earlier (and later) social-historical contexts. For example, when Keynes explains the wider context of investment activity in terms of such things as investor attitudes, conventions, and the institution of the stock market, he frames his analysis in terms of the historic separation of ownership and management. The emerging interwar period that especially concerned him was in his eyes a relatively distinct historical epoch which involved range of seemingly unrelated social activities he wished to treat as a single context surrounding investment behavior. For Sraffa, explaining exchange relations and distribution requires one to know the value of one distributive variable. But that, say, the real wage is at some particular level at any given point in time reflects a history of past conflicts between labor and owners of capital that has produced the balance of power that determines the wage. That current balance of power largely defines the period at issue; and constitutes the organizing framework for the variety of social forms that factor into the social context of the economy.

[4] In effect, each day investors wake up and read yesterday's results in the form of closing prices/average expectation.

[5] Marshall also thought in terms of the social-historical embeddedness of economic life, but did not seem to see history as a process involving a sequence of distinguishable epochs. Evidence for this lies in his seeing Ricardo's highly specific historical thinking, for example the context in which he advanced his differential rent analysis, in terms of a general progress in the creation of timeless (marginalist) tools.

This common preconception that the economy is always embedded in a specific social context that marks off a distinguishable historical epoch dated for Sraffa and Keynes from their early shared interest in postwar European monetary policy, theory, and institutions. Sraffa's baccalaureate thesis analyzing the Italian inflation of 1914-20 and his 1922 papers on the Italian banking crisis (1922a, 1922b) together with Keynes's *Tract on Monetary Reform* and his *The Economic Consequences of the Peace* all presupposed that the postwar period was different in nature from prewar historical experience, and accordingly needed to be understood as a relatively unique historical episode[6]. This view of history can be further illuminated through attention to the philosophical views of two of Sraffa and Keynes's contemporaries, namely, Antonio Gramsci and Ludwig Wittgenstein. We know that Gramsci and Sraffa influenced one another [cf. POTIER (1991)]. Sraffa also is know to have influenced Wittgenstein [cf. MALCOLM (1958); DAVIS (1988)]. Finally, there are a number of points at which the thinking of Keynes and Wittgenstein converge that suggest each may have had an influence on the other [COATES (1996); DAVIS (1996)]. But rather than attempt to trace out chains of influence across these individuals, we may simply examine where the philosophical thinking of Gramsci and Wittgenstein appears to bear directly on Sraffa and Keynes's thinking about the social-historical embeddedness of economics. Here one particular theme in Gramsci and Wittgenstein's work is especially important, namely, that diverse social activities need to be seen as being integrated in larger social frameworks that we may identify and investigate as distinguishable historical episodes.

Gramsci gave sense to this sort of notion in his philosophy of praxis. As a Marxist in northern Italy after World War I, Gramsci helped organize workers against the emerging power of Mussolini and the Fascists. Marxists in Europe had been split by the experience of the War, before which some had argued that the laws of history guaranteed the inevitable fall of capitalism, whereas others had argued that it was necessary to form revolutionary political parties to lead the

[6] See PANICO (1988) for a full account of Sraffa's early thinking in this regard.

working class in the seizure of state power. Gramsci, as the Bolsheviks in Russia, held the latter view, and helped to begin the weekly «L'Ordine Nuovo: Rassegna settimanale di cultura socialista» in 1919. The journal became the voice of the workers' council movement which organized factory strikes in Turin and occupation of factories throughout Italy in the following year. Gramsci's distinctive conceptions emerged during this experience.

Gramsci saw Hegelian philosophy as potentially supportive of revisionist pre-war Marxism[7]. To the idealistic, speculative language of classical German philosophy that he believed generated passivisim in politics, he opposed a realistic, historically immanentist philosophy of praxis that made philosophical and scientific ideas inseparable from political ideas. Marx, he argued, had linked the political experience of the French Revolution, the appearance of English political economy, and the rise of German philosophy and science. He supposed that the end of the eighteenth century through the beginning of the nineteenth formed a distinguishable epoch in the recent history of capitalism in terms of which most social relationships could be understood. The beginning of the twentieth century, Gramsci believed, bore the outlines of another unique, historical epoch. To be able to lead the political and economic struggle of the working class during the immediate post-War years consequently required that Marxists grasp the special characteristics of the period as a single epoch. For Gramsci, this meant seeing all of the period's phenomena - political, cultural, legal, economic, scientific - as internally related to one another, or as being organically connected. Working class victory, he believed, meant achieving an ideological hegemony that combined understanding of how all these phenomena were interlinked to create class power.

Sraffa became involved with the editorial team of «L'Ordine Nuovo» soon after the journal's founding. He was actively engaged in debates around the journal, and later became a close friend of Gramsci [POTIER (1991), pp. 20ff]. One particular exchange between the two shows important points of contact between their views. In 1932 when Gramsci was in prison, Sraffa responded to a set of questions delivered to him from Gramsci regarding whether Ricardo might be thought an early theorist of the philosophy of praxis[8]. Sraffa was skeptical.

[7] Perhaps the best source for Gramsci's thinking about the philosophy of praxis is his *Some Problems in the Study of the Philosophy of Praxis* [GRAMSCI (1971), pp. 381-419].

[8] Gramsci's letter, passed on to Sraffa by his sister-in-law, Tatiana Schucht, is reproduced in POTIER (1991, pp. 63-5). He makes essentially the same argument in *Some Problems in the Study of the Philosophy of Praxis* (pp. 400-2).

It is in any case difficult to evaluate the philosophical importance, if any, of Ricardo's thinking, since, unlike the philosophers of *praxis*, he never subjected his own thinking to historical considerations. He rarely placed himself in a historical perspective and, as has been said, he considered the laws of the society in which he lived to be natural and immutable [quoted in BADALONI (1981), p. 296; POTIER (1991), pp. 65-6].

Clearly Sraffa understood the main propositions of Gramsci's philosophy of praxis, since here he comments on whether Ricardo recognized the historical character of his own ideas. Had Ricardo seen his own thought from an historical perspective, he might have been able to investigate how his theoretical conceptions regarding profit as a surplus were connected to his political defense of free trade. But the foundation of his views about profit was his naturalistic account of labor value and the laws explaining distribution. Ricardo thus lacked the essential insight that would have made him an early forerunner of the philosophy of praxis. He failed to see how the characteristics of the period immediately after the Napoleonic Wars influenced his conception of political economy.

Sraffa's somewhat better known criticism of Wittgenstein's early philosophy is similar in nature. Wittgenstein had originally argued in his first book (1921) that propositional fact-stating discourse fully comprehended what we may know and say about the world. In discussions with Wittgenstein, Sraffa challenged the idea that an abstract logical language could adequately capture people's intended meanings, such as in gestures, which typically depend for their understanding on the context, circumstances, and culture in which they are used. Sraffa's example of a gesture as an instrument of meaning is a particularly insightful one, since the meaning of a gesture is typically tied to distinct, relatively unique social settings, both geographical and historical. Indeed, when Sraffa reportedly demonstrated to Wittgenstein how a well-known Neopolitan gesture of brushing one's fingers forward under one's chin communicated a specific meaning, Wittgenstein was said to have become convinced that he needed to re-approach the subject of meaning altogether [cf. DAVIS (1988)]. Sraffa's example reflected not just an historically immanentist view of philosophy and science, but also the influence of Gramsci's understanding of Marx's philosophy of praxis, namely, that the social-historical embeddedness of ideas needed to be understood in terms of relatively self-contained historical epochs[9].

[9] For the argument that Sraffa's philosophical thinking also reflects organicist concepts, see DAVIS (1993).

Wittgenstein, when he reconstructed his philosophy of meaning in his later work (1953) adopted two principles that recall key elements in a philosophy of praxis[10]. First, he advanced the view that meaning is inseparably tied to use. If we want to understand the way in which language is used, we must attend to what people do with language. Meaning, that is, is not an abstract logic that applies across any and all contexts equally well. Rather meaning emerges from the practical aspects of people's ordinary lives[11]. Second, consistent with Sraffa's example of a gesture, Wittgenstein characterized relatively independent, self-contained language practices as language-games and forms of life. Language-games and forms of life involve distinct sets of (implicit) rules for the use of language in specific, concrete settings[12]. Because the occasions in which language is used involve relatively distinguishable circumstances, we need to tie meaning to use, and further tie use to context. This concern with material settings lacks Gramsci's greater emphasis on historical epochs, but it operates in terms of much the same type of thinking he employed.

Keynes came closest to Wittgenstein's later views in his treatment of conventions discussed briefly above. Conventions are not so much rules of thumb as structures of individual expectations that may in each case be summarized by the state of average expectation. What conventions do is to interrelate a set of seemingly independent activities of different individuals within a certain domain. Thus investment activity, in Wittgenstein's terms, involves a language-game and form of life in which conventions or implicit rules position individuals with respect to one another on a day-to-day basis. The language-game aspect of investment behavior concerns the understanding individuals have of what constitutes a "good" or "bad" investment. To generate a label neutral with respect to both Keynes and Wittgenstein, we might characterize conventions and forms of life/language-games as social practices. Practices are spheres of activity within society that integrate different individuals' actions in regard to sets of shared goals. For both Keynes and Wittgenstein, then, one gained understanding of the economy and society by building up a view of the latter out of how one understands different practices relate to one another.

[10] In the preface to this later work, he specifically credited Sraffa for the most important criticisms of his earlier book, and for having made possible the re-direction of his thinking.

[11] Gramsci made a related argument in his critical discussion of «common sense» [cf. GRAMSCI (1971), pp. 323ff].

[12] «Here the term 'language-*game*' is meant to bring into prominence the fact that the *speaking* of language is part of an activity, or of a form of life» (1953, pt. I, para. 23).

Keynes, of course, was a liberal politically speaking, and Wittgenstein, though he visited Russia and thought about communism, never developed serious attachment to the working class movement [MONK (1990)]. In contrast, Gramsci and Sraffa both hoped that the power of the state would be brought behind the cause of labor. Thus if a broad difference between these individuals exists on a philosophical level, it seems to concern the level of aggregation at which one ought to investigate the interrelatedness of the different aspects of society – culture, economics, politics, and so on. Gramsci and perhaps Sraffa seem to have pitched their aggregation at the level of society as a whole by focusing on historical epochs and types of economies respectively. Keynes and Wittgenstein, while they were also interested in society-wide issues, seem to have rested greater emphasis on collections of practices, each of which exhibited an inseparable collection of different aspects.

These possible differences, however, should not obscure the shared orientation that distinguishes the thinking of these four individuals from other views of society. Whereas neoclassical economists often argue as if society can be reduced to economic behavior between atomistic individuals interacting through markets, Gramsci, Sraffa, Keynes, and Wittgenstein seem to agree that economic behavior cannot be understood apart from other dimensions of social life, and that our conceptions are historically rooted in practical experience. Sraffa and Keynes, then, shared important preconceptions about the nature of economics. How do these ideas bear on their respective treatments of time, especially as regards the distinction between the short period and the long period?

4. Problems of economic interpretation

The idea that the economic process needs to be understood in the context of political, legal, cultural, and other social-historical phenomena encourages us to think in terms of epochs and historical periods. Though any society's culture, system of law, politics, and so on involve a range of diverse, heterogeneous phenomena, that there are interconnections and relations between them in virtue of their jointly occupying a single space of time makes it possible and fairly common to speak of distinguishable historical periods. Of course debate is neverending over what identifies any given historical period, as well as over the equally difficult matter of what determines its boundaries in time. But much of this debate presupposes that thinking in terms of periods or epochs is meaningful.

Reasoning in terms of distinguishable historical periods or epochs implies that societies tend to be relatively settled states of affairs over extended periods of time. Keynes gave expression to this conception when he recorded his view in *The General Theory* that the modern capitalist economic system, while often subject to severe fluctuations in employment and output, was not as a whole unstable [(1936), pp. 249-254]. The overall nature of the system and «the psychological propensities of the modern world» (p. 250) were such that things more or less continued as they had in the past for considerable periods of time. Sraffa in *Production of Commodities by Means of Commodities* understood prices of production in a classical sense as permitting economic systems to reproduce themselves over time. Since his prices of production depend on the state of science and the social-technical organization of the production process, his thinking also presupposes inertial change in economic systems.

One way that the inertial qualities of economic systems can be represented is in terms of the classical notion of natural prices as long-period centers of gravitation. Thus a number of the papers in the Eatwell-Milgate collection (1983) attempt to reconcile Keynes's principle of effective demand with Sraffa's classical theory of value by interpreting Keynes's thinking in terms of long-period centers of gravitation. While Keynes's views about the relative stability of modern capitalism support this, his emphasis in much of the rest of *The General Theory* on the short period raises questions for such an analysis. Of the criticisms of the long-period interpretation of Keynes that have been advanced, perhaps the most important is that it downplays Keynes's emphasis on uncertainty and expectations, themes emphasized by post-Keynesians such as Paul Davidson (1972) and George Shackle (1974).

Geoff Harcourt (1981), however, suggests a means of mediating this issue. We may draw analogies between centers of gravitation and the phenomena of physics, which leave very little basis for conceptualizing short-period events in long-period frameworks, or we may alternatively treat centers of gravitation as more akin to meteorological phenomena possessing average values about which we observe sometimes modest, sometimes dramatic variability· Garegnani (1979) also suggests that centers of gravitation, specifically the normal rate of profits, can be represented as average values about which we observe variability. Jan Kregel (1976), in his delineation of different modelling methodologies in *The General Theory*, gives grounds for adopting this interpretation for Keynes. He calls the model in which long-period expectations E are constant and short-period expectations e are realized Keynes's static model, the model in which E is constant, but e may be disappointed and changing Keynes's stationary model, and the model in which E is shifting, and e may be disappointed Keynes's shifting equilibrium model. The first two models seem consistent with understanding the economy as having long-period, center of gravitation values. Static and stationary equilibria exhibit some variability, but most prices, distributive variables, and production relationships are little changed. The third model suggests a process of change disruptive of long-period values. But Keynes's emphasis on the inertial character of capitalist economies might be taken as indicating that these changes were infrequent rather than common. Note his comment on the nature of economic models: «The object of a model is to segregate the semi-permanent or relatively constant factors from those which are transitory or fluctuating so as to develop a logical way of thinking about the latter» [(1973), p. 297]. Moreover, classical analysis does not rule out shifts in long-period values. It simply argues that economies tend to settle around them as, on the meteorological analogy, average values for extended periods of time.

Moreover, placing Keynes's thinking in a long-period context does not rule out making short-period questions a primary focus, as do many post-Keynesians. For them, long-period issues might be seen as background considerations that help define the larger context in which short-period issues arise. That economists working in the tradition of Sraffa emphasize long-period questions then seems rather to reflect an intellectual division of labor than a fundamental conflict. Alessandro Roncaglia [(1991), pp. 209-10] supports this view when he emphasizes that natural prices only express systematic factors in the market economy, whereas market prices reflect a multiplicity of systematic and non-systematic factors. Perhaps where differences become significant between those who concentrate on Keynes's short-period themes and those who concentrate on Sraffa's long-period focus is in connection with politics. Keynes and Sraffa had important disagreements on this level, because they saw themselves as affiliated with different social-political forces, Keynes with the English liberal elite and Sraffa with the European working class movement. These different forces in turn involved different historical agents, each acting in different capacities. Thus for Keynes short-period concerns were tied to the prospective activities of economic policy elites. For Sraffa, long-period concerns were tied to possible shifts in the balance of class power. From this perspective, the two shared a conviction that economics was intimately tied to politics, which in turn reflected the wider social-historical context in which they both operated.

This wider social-historical context, no doubt, was understood differently by the two. Just as their politics differed, so their views of

the period in which they lived were surely different in important respects. But that they reasoned in terms of different historical perspectives may have been a factor behind their early association. If each thought he understood the way economics was embedded in a wider social-historical context, each may have been challenged by discovering an individual with much the same methodology but quite different political-economic strategies. But Sraffa and Keynes were in agreement, it seems, on the principle that formal, ahistorical economic analysis is an inadequate form of explanation. Economic explanation was for them an analysis of the historical society they occupied from an economic perspective. In this respect, there was no conflict between them.

ABSTRACT

The relationship between the thinking and work of Sraffa and Keynes is complex and controversial. This paper approaches it initially through an investigation of their respective interpretations of their predecessors, the classical economists and Marshall. Keynes is argued to have misinterpreted the classicals on Say's Law largely on account of his having accepted Marshall's continuity conception of the relation of classical to neoclassical economics. Sraffa's understanding of classical economics as being rooted in a different conception of value and distribution is opposed to Keynes's view. Yet though the two differed at this fundamental level, an argument can be made for saying they agreed that economic analysis needs to be embedded in social contexts identified in terms of relatively distinct historical periods. This argument is developed in the second half of this paper in terms of the philosophical views of Gramsci and Wittgenstein. An important conclusion is that distinct historical periods exhibit interconnected and relatively settled states of affairs across social and economic life. This gives some justification for treating both Sraffa and Keynes in long-period terms, if this framework is understood in the language of propensities and average practices.

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