

# SAMUELSON'S "TRANSFORMATION" OF MARXISM INTO BOURGEOIS ECONOMICS

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SOMEHOW, AND FOR REASONS known only to himself, Paul A. Samuelson cannot leave Marx alone. His latest concern<sup>1</sup> in this respect is an attempt to have the last word in a long-drawn controversy regarding the relation between value and price in the Marxian system. He acknowledges right from the start that the criticism made by Böhm-Bawerk and others, namely that Marx was not able to sustain the theory of value as presented in Volume I of *Capital* and abandoned it in favor of a price theory in Volume III, cannot be made because of the fact that the third volume was completed prior to the publication of the first. Samuelson insists, nonetheless, that Marx developed two separate theories, which cannot be reconciled by way of a value-price transformation process such as Marx envisioned.

Paradoxical as it may sound, this position on the part of Samuelson comes, in a way, closer to Marx's theory than all the previous attempts either to prove or disprove the possibility of transforming values into market prices. Because Samuelson provides us with a critical evaluation of the relevant literature, involving both Marxist and bourgeois economists, there is no need to drag any of these into the discussion, the less so because we share Samuelson's belief in the futility of any attempt actually to transform values into prices. And yet, from a Marxian point of view, there is no way of understanding price formations except by way of the value concept. But this has little to do with the value-price transformation problem as

1 Paul A. Samuelson, "Understanding the Marxian Notion of Exploitation: A Summary of the So-called Transformation Problem between Marxian Values and Competitive Prices." *Journal of Economic Literature*, June 1971, vol. IX, no. 2, pp. 399-431.

posed by Samuelson and his appointed adversaries, because the positions of both are based on a common misunderstanding of Marx's theory of value and surplus value.

According to Samuelson, Marx and the Marxists believed "that the profit rates and prices of Volume III . . . *must* be anchored on the total surplus deducible from Volume I's value analysis," and they showed "how Volume I values with their microeconomic discrepancies are 'transformed' into real world prices and profits." For Samuelson, however, values and prices are "mutually-exclusive alternatives," precluding their reciprocal transformation. One can have either the one or the other, but not both simultaneously. He turns first to the labor theory of value, to show its incompatibility with bourgeois price theory and, of course, all price theories for Samuelson are bourgeois theories. For him, moreover, there also exists no difference between the value theories of Smith and Ricardo and the labor theory of value and surplus value as developed by Marx in criticism of the classical theories.

Examining the labor theory of Adam Smith's "early and rude state," in which beaver exchanges for deer according to the labor time required in their chase, he concludes that under these primitive conditions an "undiluted labor theory of value" would explain the exchange, but it would also be "the correct general equilibrium outcome according to Walras and Böhm-Bawerk." The explanation "also agrees both with Volume I's analysis of Marxian values and Marx's Volume III analysis of prices."

There is no exploitation in this exchange. But Samuelson "complicates the scenario" by introducing the distinction between "direct" and "indirect" labor and by assuming conditions wherein prices are determined by the total embodied labor, that is, both direct and indirect, thus bringing the exchange relations of Adam Smith's early and rude state to an end. He compounds the scenario still further by imagining a taxing government, which "levels a 10 per cent *turnover* tax on all exchange transactions." The upshot of these exercises, aided by "high-school algebra," is this statement: "Because industries are unequal in relative-direct-labor intensities (organic composition of capital) a turnover tax pyramids or compounds differently in the various industries, leading to exchange ratios that deviate from those given by embodied labor hours. Those

with relatively most labor 'dated far back' rise most in relative price."

In other words, the presence of "indirect," "dead," or "past" labor, assuming the form of capital and producing unlike organic compositions of different capital entities, together with the unequal effects of a turnover tax upon the diverse capital units, precludes exchange relations according to labor-time values. Thus far, we have only an awkward restatement of the Marxian theory that varying rates of profit for different capital of divergent organic compositions preclude an exchange of commodities according to labor-time values—without, in Marx's view, violating the labor theory of value.

Samuelson is, of course, an opponent of this theory. Adam Smith, he writes, "lingered in his 'early and rude' state with its undiluted labor theory for only a page. Turn the page and Eden is left behind. Now land is scarce; rent is charged for it; deer and beaver now have exchange prices that include land-rent, and except in the singular case of goods that happen to have exactly the same labor-land intensities, price ratios forever depart from the embodied labor content." How, Samuelson wonders, "did the Ricardians miss this elementary fact?" And how could they miss, he keeps on wondering, the other fact that people are not all alike? "Ricardo and Marx," he writes, "hoped to evade this difficulty by redefining new units of labor power. If men are one-third as productive as women, use an hour of male labor as the lowest denominator and then dub each female labor as being three honorary male units." And so he goes on, indulging in his celebrated wit, to show that no predictions about exchange ratios can be obtained from the labor theory of value. But this has also been said by Marx.

Although Samuelson feels that "an exercise in overkill of the labor theory of value has little point at this date," he cannot resist pointing to the most "common objection to it," namely "the consideration of time" as the factor explaining interests and profits, as was argued by Böhm-Bawerk and his followers. He notices with satisfaction that Adam Smith found himself obliged to "include interest and profit in competitive prices along with labor wages and rent," and he is happy that Ricardo "admitted that shrimp picked up on the shore, in comparison with ancient oaks or aged wine, would *not* exchange in accordance with respective embodied labor contents." In the real world of 1776, 1817, or 1970, he says, "time

was money and interests were not zero." Although he arrived by a devious route, Marx too, he claims, finally accepted these facts. The route Marx took, Samuelson points out, may be understood by noting the classical economists' view that labor, along with other commodities, is a cost of production. But whereas the cost-of-production or subsistence-wage theory of Malthus and Ricardo was based on a theory of population connected with a theory of diminishing returns in agricultural production, Marx's subsistence theory did not have such an underpinning. Samuelson thus finds it necessary "to elucidate the logic of Marx's model on the basis of acceptance of its basic postulates and axioms."

But since Samuelson does not know Marx's "basic postulates," he has a difficult time "elucidating Marx's model." He starts, therefore, once again with the more familiar Adam Smith. In the beaver-deer equation, he finds, "nothing is left over for a possible profit rate or for any taxation . . . actually, if a tax were imposed the population would die out. But suppose due to some invention more than is necessary for sheer existence would be produced, it would allow for the appropriation of the surplus by Marx's acquisitive capitalist." He would absorb the profit by leaving the real wage at the subsistence level.

With an entirely superfluous imaginary model of his own, Samuelson proceeds to show that an exploitation model can be couched in bourgeois terms free of the terminological innovations of Marx's Volume I, even though "the spirit of the model can also be attained in Marxian concepts of surplus value." One can do even better and arrive at the fact of exploitation by direct experience without the aid of any theory whatever. Be this as it may, in Samuelson's view exploitation results from the necessary combination of direct with past labor, the latter appearing in his model as *capital goods* in the shape of raw materials. And "if workers do not save—do not 'abstain,' do not 'wait'—they will be unable to provide raw materials needed for their labor to work with." If capitalists have these raw materials, "they can now strike a bargain with the workers and capture some of the producible surplus."

Some, not all of it, because this is a competitive world and according to bourgeois equilibrium theory there will be an equilibrium rate of profit adjusting capital formation to the growing labor

force. The growing labor force already implies that real wages exceed the minimum cost of subsistence and of reproduction of labor power. "Any increase in capitalists' propensity to save out of each profit rate," Samuelson writes, "will raise the real wage and the system's natural rate of growth, and will lower the equilibrium profit rate. If we superimpose continuing technological change on the system, real wages under developing capitalism can be presumed to rise—slowly or rapidly depending upon the nature of the innovations and the underlying biological and thrift propensities." This model, according to Samuelson, "could as legitimately be claimed by Nassau Senior as by Karl Marx or Joan Robinson" as satisfying the requirements of an exploitation theory of profits and wages.

Having settled this to his own satisfaction, Samuelson turns directly to Marx's transformation process, that is, to the tables illustrating the formation of an average rate of profit as presented in Volume III of *Capital*.<sup>2</sup> These tables do not exhaust the process depicted by them, but merely serve to make them more comprehensible. They show that a number of different capitals (five in this case) of equal magnitude but with different organic compositions, and, it is assumed, equal rates of exploitation, yield different amounts of surplus value and different rates of profit. Considering the five capitals as so many branches of one single capital, the individual profit rates in each branch may be turned into an average rate of profit for the capital as a whole. This can also be brought about by an alteration of the prices realized by the single branches, until all yield identical rates of profit. This "transformation" of values into prices is presumed to be brought about through market competition.

The competitive prices do not alter the fact that for society as a whole the sum of all prices, whatever their individual deviations from their values, is equal to the total produced. In this presentation of the value-price transformation process, it has been charged—and Samuelson agrees with the charge—that Marx was inconsistent because he kept the same constant capitals in both his value and his price calculations, whereas the logic which dictates that values be changed into prices requires that the constant capital must also be converted into prices. It should be obvious, however, that in real-

<sup>2</sup> Kerr ed., pp. 183-185.

ity only price relations exist. The value-price transformation, of which Marx speaks, does not refer to observable concrete facts, but is a theoretical device for clarifying the changes brought about by competition and the circulation process in a value- and surplus-value-producing society. For this limited end, the tables, as presented by Marx, are entirely sufficient and it makes no sense to demand more from them than they were designed to convey.

Although Samuelson agrees with the charge of inconsistency in Marx's handling of the value-price transformation problem, his superior erudition detects nonetheless "that there is a singular case in which Marx's algorithm happens to be rigorously correct." Of course, this is a mere "*curiosum*" but it may nonetheless serve "to demonstrate that anyone who believes in the relevance of a minimum-subsistence wage will understand his own theory better if he preserves from Volume I only the spirit of the insight that there is a discrepancy between what can be produced and what constitutes the minimum wage, and he will do better to jettison as unnecessary and obfuscating to his *own* theory the letter of Volume I's analysis of inter-industry values."

The singular case, offered by Samuelson, in which Marx's procedure becomes "exact," is an impossible one, namely, the case where "*every one of the departments [of Marx's transformation table] happens to use the various raw materials and machine services in the same proportions that society produces them in toto,*" and where "*the minimum-subsistence budget is a market basket of goods that comes in those relative proportions as the goods are used as inputs in production.*" It is this kind of highfalutin rubbish, for which Samuelson finds the euphemism "disparities from realism," that is supposed "to elucidate the objections to Marx's procedures more cogently." Without this concoction of his, Samuelson says, Marx's procedures could not be defended, for although Marx tells us "that the workers work half the day for themselves and half the day for the exploiting capitalists, he does not indicate in his various tables what fraction of the goods in the different departments make up their iron rations." However, this playful exercise serves only to repeat once more that it is not possible to derive prices from values, or vice versa.

The assumed dichotomy of value and price commits Samuelson

to object to the arguments made by Böhm-Bawerk and Joan Robinson "that only profits and prices have a reality and that Marx in beginning with value and rates of surplus value has *already* performed the inverse transformation; thus the direct transformation merely brings him back to his starting point." Samuelson finds this incorrect, for it has been shown by Sraffa and Leontief that "one can go from an undiluted labor theory of value, in which the direct labor-hour requirements of each good and the subsistence can be reckoned up in physical terms, to Marx's table of values." But this holds only for a labor theory of value in its "undiluted, technocratic sense, namely as an algebraic procedure that tells you what can be produced with a given total of labor in the steady state when all capital goods have become adjusted." On the other hand, Samuelson remarks, "a theory of the exploitation wage can be based solely upon the analysis of profits and prices," for which reason he expects that some day "Marxians will probably wish to formulate it in those terms." It was perhaps, he muses, "Marx's incapacity in algebra and the absence of the computer that caused him to formulate his exploitation theory in Volume I terms which are unrealistic but which happen to be simpler to handle algebraically than Volume III's Walrasian relations."

The difference between Samuelson's position on the value-price question and the positions of Böhm-Bawerk and Joan Robinson is, of course, of a purely scholastic nature, taken in its derogatory sense. While it is true that one cannot derive actual commodity prices from their labor-time values, it is equally true that in reality there are only profits and prices. But as Samuelson winds up recommending that only the latter phenomena should be considered, he finds himself sharing the positions of Böhm-Bawerk and Joan Robinson. However, the crucial issue is no longer, he writes, "whether Volume III's prices are more realistic under competition," but whether, "as Marx and his modern defenders have claimed, the profit rate upon which Volume III's Walrasian equilibrium depends is itself crucially determined by Volume I's analysis of surplus value, or crucially dependent on the *totals* of these magnitudes (in the sense that the profit rate can only be calculated *after* these have been summed up and averaged out)." Samuelson proceeds then to demonstrate that Marx and Engels were "simply wrong in their identification

of what aspect of the labor theory of value is intrinsically involved in working out a price-profit configuration that corresponds to the minimum-wage theory of exploitation."

For this, Samuelson offers a "clear-cut mathematical proof." But being aware that not everybody is a "virtuoso in matrix algebra," he consents to offer a second demonstration by "means of a simplified two department numerical example," to be topped off by a graphical analysis supposed to "clinch the point that profit-price equilibrium is determinable *solely* from the production coefficients specifying the required labor embodiments of the industries and from the minimum subsistence wage-good requirements." We can, however, disregard the mathematical, numerical and graphical demonstrations, for they merely state again what we have already learned, namely, that there is no need for a transformation problem, either direct or inverse. Samuelson flatters himself in thinking "that Marx, were he alive today," would agree with him and that, in any case, "Marxians in the future can be expected to agree with these prosaic and uncontroversial facts of arithmetic and logic." We can disregard these arithmetic and logical truths because they have no connection with the problem of value and price as seen by Marx. To establish this, we will have to leave Samuelson and turn to Marx himself.

In order to clarify the value concept, Marx began his *Capital* with an unrealistic value-exchange, fully aware that such an exchange does not, and cannot, take place in capitalism. He did so, not because the classicists had failed to apply their labor theory of value consistently and were thus not able fully to comprehend their own economy. It was theoretical weakness, not a sense of reality, as Samuelson assumes, that explains Adam Smith's failure to account for competitive prices on the basis of the labor theory of value. Theoretical weakness, as Marx observed, also accounts for Ricardo's leaving economics altogether in favor of chemistry; his difficulty was that he could not reconcile the labor theory of value with the factor of rent. It was by way of criticism of the classical theory that Marx developed his own theory of value and surplus value, and there is no point in approaching Marxism via the inconsistencies and weaknesses of classical economy.

Whereas in the first volume of *Capital* Marx "analyzed the phenomena presented by the *process of capitalist production*, consid-



ered by itself as a mere productive process without regard to any secondary influence of conditions outside of it," he turns in the third volume to a consideration of the "concrete forms growing out of the *movements of capitalist production as a whole*. . . . The conformations of the capitals evolved in this third volume approach step by step that form which they assume on the surface of society, in their mutual interactions, in competition, and in the ordinary consciousness of the human agencies of this process."<sup>3</sup>

The goal Marx set for himself was the discovery and elucidation of the developmental laws of capital production. For this, the market alone offers no clues; one must also deal with its underlying production relations. By disregarding, at first, the continually changing market relations, the social product, whatever it might be, divides itself into value and surplus value. What the market can distribute in its own fashion depends on these two aggregates. This division of the social product, expressing the capitalist production relations, although a fact, is neither registered nor does it come directly to light in the market phenomena. It has to be detected by a mental effort which tries to find out why the market behaves as it does.

The production and circulation processes are, of course, an indivisible entity and to ignore the latter yields only an abstract theory of value and surplus value. It is abstract with respect to the market relations, though quite concrete as regards the basic production relations when considered in isolation. By disregarding production relations, the bourgeois market theory is of course also an abstraction. But whereas the bourgeois theory remains in that abstract sphere, Marxian theory allows for a return from the abstract consideration of the basic capitalist production relations to the observation and comprehension of the concretely given totality of the capitalist economy.

In considering prices and profits, as formed by the market, Marx is concerned only to the extent that they require an explanation in value terms. The value relations, that is, labor-time relations, are an obvious reality. No one, not even a bourgeois economist, would deny that there would be no production and no market without la-

<sup>3</sup> *Ibid.*, pp. 37-38.

bor. Neither would they deny that particular commodities demand particular quantities of labor time, and that there must be a definite allocation of the available social labor time to produce the various goods that society needs to exist. Even though this fact appears in bourgeois theory in the innocent form of production coefficients, it is there nonetheless, although treated merely as an aspect of the price mechanism. However, the obvious fact that everything is based on labor is also of no interest to Marx. What concerns him is why the social labor relations appear as value relations. Whereas classical economy recognized two value forms—exchange and use value—Marx asked how the concept of value could arise altogether, and he found the answer in the specific class relations of the capitalist mode of production.

Samuelson maintains, in his non-Marxian exploitation theory, that because the workers fail to abstain and thus save the necessary capital required for production, it becomes necessary for the capitalists, who do possess capital, to play an essential role in the productive process. Actually, for the workers as a class, there is no way to abstain and to save because the conditions of production are monopolized by the capitalist class, which is thus master of the distribution of the social product. It appropriates part of it, but it is forced to leave enough for the workers to enable them to work and to reproduce both themselves and the prevailing condition of production. It is this definite class relationship that takes on the character of a value relationship because it asserts itself under capitalistic property and market relations.

Because the conditions of production are under the private control of as many capitalists as exist at any given time, there is no conscious regulation of the social production requirements, nor any conscious arrangement of the distribution process. But all capitalists, at any particular time and in the long run, dispose of the production of definite quantities of commodities that require specific amounts of labor time. The workers sell their labor power to the capitalists at a price that enables them to exist. This necessary minimum, or Samuelson's subsistence wage, has been a fact for many workers throughout capitalist history, especially in its early stages. However, the "subsistence wage" need not be a fact—that is, it need not apply to large numbers of workers. Nevertheless, it can still be

assumed to determine in a general way the capitalists' share of total social production. Everything beyond what the workers receive is the product of the surplus labor time falling to the capitalists. Because the social relations between exploited and exploiters have taken on the nature of exchange relations, the division between labor and surplus labor has the character of value relations. If society were not basically divided into two social classes, there would be no exchange between the owners of the means of production and the workers, and the social production relations would not signify value relations.

For Marx, value and price relations are not "economic" relations in the sense of bourgeois economic theory, but *social class relations* which appear as "economic" relations under the conditions of capitalist commodity production. Although they cannot appear otherwise, they are nonetheless only a historical form of social class relations. From this point of view, value and price are equally fetishistic categories for the underlying capital-labor relations and have meaning only so long as these relations exist. While they exist, however, it is necessary to treat the social production relations as value and price relations.

Marx's abstract value model of capital production serves to show that even under capitalistically most favorable circumstances, the appearance of class relations as value relations implies an immanent contradiction, which comes increasingly to the fore as the productivity of labor and the accumulation of capital increase. However, since Samuelson does not deal with the question of whether or not "the exploitation model throws light on the laws of motion of the system"—even though this was the sole purpose of Marx's work—we must deny ourselves the demonstration that it was the theory of value and surplus value that enabled Marx to apprehend, in a general way, the developmental tendencies of capitalism and to predict its final demise.

Although it is not possible to force the dynamics of Marxian theory into the static concepts of bourgeois price theory, and although the latter is itself a pointless assumption in a dynamic world, we will, for the sake of argument, accept Samuelson's unrealistic suppositions because they exhibit his inability to comprehend the value-price problem as presented by Marx. The dynamics of capitalism

are not discernible from a static equilibrium theory, which, even in the apparently sophisticated mathematical Walrasian form, is finally nothing more than Say's old equilibrium of supply and demand. The assumption of that equilibrium deliberately excluded the basic disequilibrium which explains both capitalist development and its decay. This basic disequilibrium, namely, the contradictory development between exchange value and use value, remains unrecognizable in the price system.

When Marx considers prices, he does so not because he has a real interest in relative prices and their everchanging interdependencies, but because in reality there are only prices and profits, which need to be explained in order to show that their existence does not invalidate a value analysis of capitalism. This latter analysis can only be undertaken by way of a mental construct. But this is a "shortcoming" that it shares with the equilibrium models of bourgeois price theory. If Samuelson tries to suggest the superfluity of Marx's value analysis, he is under the illusion that bourgeois price theory accounts for all the relevant economic phenomena, whereas in fact it merely deals with the superficial changes brought about by supply and demand—that is, bourgeois price theory merely explains one price by another, but not price itself. Even if he manages to express the fact of exploitation within a model concerned only with prices, such an explanation has no meaning for Marxists, whose interest is not in competitive price constellations but in the abolition of the price system itself.

Marx's primary interest was not in the mere fact of exploitation, recognized long before him, but in the question of the historical viability of the specific form of capitalist exploitation. This required an analysis of the social aggregates of labor and surplus labor—value and surplus value—and their respective movements in the course of capitalistic development. Thus the necessity arose to demonstrate that the actually existing price and profit relations are derived from value relations, even though their deviations from the latter are not susceptible to direct observation. According to Marx, the substantiation of the derivation of price from value does not come from a study of the deviations of the prices of commodities from their labor-time content, as Samuelson assumes. Rather, it requires an exami-

nation of the actual changes of the general price level in the course of the growing productivity of labor.

Value and surplus value have no meaning for the capitalists. Their only concern is with the production costs and profits in terms of prices. Competition has the tendency to average out the rate of profit on capital. Such a process assumes the existence of different rates of profit as well as a definite total quantity of social profit. While the existence of an average rate of profit can be explained by competition, its particular size cannot be so explained. Its size is determined by the unknown but nonetheless existing total profit relative to the total social capital.

The average rate of profit is not a "*postulate*" of Marx's, as Samuelson states, but an empirical observation seemingly contradicting the labor theory of value. It points to a difference between the production of surplus value and its distribution, brought about by market occurrences that reflect real social needs within the frame of capitalist production. Interested only in profits, the capitalists must gain them via the production of commodities that cater to the market demand. The growing and changing demand for commodities moves capital from one sphere of production into another, from one industry to the next, away from low profits towards high profits; it is this process that averages the profit rates via changing price and market relations. But, what takes place here can change only the distribution of the socially produced total profit among the competing capitalists. By averaging the rate of profit, capitalist production is allocated in accordance with its social requirements as expressed by the market demand.

This is only another way of saying that demand and the competitive price mechanism regulate the capitalist economy. And it is here that bourgeois price theory stops, and here Marxist theory only begins. Though never a fact, it is conceivable that supply and demand could be in equilibrium and that all prices, whatever they may designate, could consequently be equilibrium prices. But this has no importance for Marxists. Marx, at any rate, assumed an equilibrium of supply and demand in order to develop his theory free from all disturbances caused by competition and market imbalances. Only thus was it possible to lay bare the basic structure of capital production and through it comprehend the various market phenom-

ena. For although it is true that competition and the price system regulate the market, this regulation is itself determined by the regulatory force of value relations, that is to say, by the possibilities and limitations of the production of surplus value in the course of capitalist accumulation.

However, this again leads to the "laws of motion" of capitalism, which are not Samuelson's present concerns. It follows from this lack of interest that he really believes that Marx was searching for a way to translate the deductively discovered value relations into the actually given price relations. Although Marx at one time flirted with the idea, it was only to discard it at once as practically impossible and theoretically unnecessary. Although "from the point of view of the total social capital, the value of commodities produced by it (or, expressed in money, their price) is equal to the value of the constant capital plus the value of the variable capital plus the surplus value,"<sup>4</sup> this total value divides itself through the competitive market relations and the nonproductive circulation process in such a manner as to exclude this possibility of recognizing specific value contents in the commodity prices.

The material necessity of the nonproductive circulation process—nonproductive because it consumes but does not produce surplus value—and the allocation of the social labor, as determined by the physical necessities of capital production, distribute the total surplus value via the averaging of profit rates in such a way that the value relations of the production process cannot appear as such, but must manifest themselves as seemingly independent price relations. The individual capitalist does not deal with value but with prices of production, that is, his cost price plus the average rate of profit. Because his production price may be another capitalist's cost price and as such enter his price of production, it becomes practically impossible to disentangle the element of value from that of price, and this the more so because the actual market prices do not equate with the prices of production but oscillate around them. Moreover, because the constant capital used in production, as well as the variable capital, enter the circulation process together with the products representing the surplus value, their entanglement allows to some ex-

4 *Ibid.*, p. 196.

tent for a further redistribution of the total value and surplus value in an everchanging pattern ultimately determined by the dynamics of capital production. In brief, it is pointless to search for the value content in the commodity price. Still, "no matter what may be the way in which prices are regulated . . . the law of value determines the movement of prices, since the reduction or increase of the labor-time required for production causes prices of production to fall or rise."<sup>5</sup>

For Marx, then, the law of value finds its empirical verification not in everyday price relations but in the overall fall or rise of the prices of production. "Since the total value of the commodities regulates the surplus value and this the level of the average rate of profit . . . it follows that the law of value regulates the prices of production."<sup>6</sup> The average rate of profit indicates that prices are determined by the system as a whole. The system as a whole is susceptible to value analysis. Both Marx's value theory and its "transformation" into prices cannot be comprehended within a static model of price relations, but only within the framework of his dynamic theory of capital accumulation. In this sense, as Samuelson surmises, there is no direct connection between Marx's value theory and his price theory that justifies the attempts to transform the one into the other, but simply an explanation of the phenomenon of price in a value- and surplus-value-producing society which finds its determination not in price but in value relations.

What Samuelson asks of his readers, by his suggestion to drop the labor theory of value, is to be content with a theory which concerns itself solely with the status quo of bourgeois commodity production, apologetically perceived as *the* economic theory per se. But generously, as behooves a Nobel laureate, he offers "a conciliatory formulation that preserves honor all around," by admitting an "essential insight" in Marx's "Volume I's digression into surplus value," which, in his view, can be expressed so much better with "the tools of bourgeois analysis." But, of course, "this notion of exploitation" is such only "in the realm of pure science," and, at the same time, merely a manner of speech, to express a "comparison of the

<sup>5</sup> *Ibid.*, p. 211.

<sup>6</sup> *Ibid.*, p. 212.

subsistence goods needed to produce and reproduce labor with what the undiluted labor theory of value calculates to be the amount of goods producible for all classes in view of the embodied labor requirements of the goods." Samuelson is willing to admit, moreover, "that Volume I, even if seen to be unnecessary in the present age, did have the advantage of being easier to expound logically." Even today, he says, "the most puristic scholar and teacher can fall back upon Volume I terminologies with the best of conscience" provided only that he prefaces his exposition with the observation that the case of the equal organic composition of capital and labor intensities, although not particularly realistic, does provide a clear searchlight on the nature and dynamic development of a model of labor exploitation.

For himself, of course, Samuelson manages without the concept of value and surplus value, which, for him, is merely an awkward and inaccurate way of dealing with price and profit relations. It was exactly the other way around for Marx, for whom price and profit relations were just the surface appearances of the internal and all-important class relations expressed as value relations. Samuelson, in attempting to demonstrate that there is no way leading from value to price theory, merely exhibits his own inability to interpret Marx correctly. As far as this particular piece of writing is concerned, Samuelson certainly wasted his time and the National Science Foundation's money.

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