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ABSTRACT LABOR AND COMMODITY PRODUCTION

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I INTRODUCTION

The analysis of commodity exchange has produced three explanations for the relative prices that manifest themselves in exchange: Ricardo's embodied labor theory, the marginalist/neoclassical general equilibrium theory (first formulated by Walras), and Marx's analysis based on the distinction between the use value and exchange value of commodities. Each of these attempts to explain the determinants of exchange value that underlie the observed fluctuations in market prices. For Ricardo, the underlying determinant was the quantity of labor (past and present) expended to produce each commodity. In the case of the neoclassicals, transitory market prices represent fluctuations around a "long run" equilibrium price, which is logically constructed on very restrictive assumptions.

The exact nature of Marx's underlying determinant of relative (and absolute) prices has been a matter of considerable controversy. In the 1970s a consensus developed among Marxists in Europe and North America that Ricardo's embodied labor view was inconsistent with the method and analysis of *Capital*. But

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while it was not difficult to demonstrate that Marx's methodological break with Ricardo lay precisely in differences over value theory, it has proved quite difficult to reach agreement over what it was Marx did to make this break. In this paper I deal with two prevailing—and perhaps most common—interpretations of Marx's law of value. I argue that in both cases the rejection of Ricardo's approach has led to a retreat into bourgeois general equilibrium theory, implicitly in one case and quite explicitly in the other. The cure proves worse than the disease, however, robbing the law of value of its power as a critique of capitalist society.

Thus, the theme of this paper is a simple one: Ricardo's embodied labor theory of value should be rejected as theoretically unsound; but it should be replaced with an analysis based on the distinction between use value and exchange value, not by general equilibrium theory in disguised form. To develop this theme, first, I clarify the concept of abstract labor, and in doing so consider the precise sense in which (1) abstract labor is "the essence of value," and (2) value arises in the "interaction of production and exchange (distribution)." This clarification is made in the context of what I call the "validation" school of interpretation of the law of value, in which a methodological break is made with Ricardian value theory by abandoning the sphere of production altogether. This approach proves unsatisfactory because the validation school can produce no underlying determinant of market values at all. It might be said that the validation school looks below the level of appearances (market price) and finds nothing there. However, even in theory the analysis cannot be left as the validation school does. The implicit solution of market prices in its system can be found in the analysis of the Uno school interpretation of Marx, which is considered in the subsequent section. Here, a close relative of bourgeois general equilibrium theory enters as the basis of the law of value. Criticism of this approach necessarily leads to treating the question of whether the law of value should be understood as an equilibrium theory, and in particular whether its robust conclusions refer to a state of general equilibrium. The last section of the article addresses this question, and argues that Marx's method involved the rejection of the concept of equilibrium, and that the law of value can be (and should be) formulated in other terms. It is further argued that the alternative formulation produces a value analysis that is determinant, and that allows one to base the analysis of relative prices in the sphere of production.

As a prelude to the main argument of the paper, a brief summary of the Marxian objections to the Ricardian approach to value theory is necessary. Until the early 1970s, one could summarize the standard Marxian formulation of the law of value by the phrase, "value is created in production." But in light of the debates between Marxian writers and neo-Ricardians in subsequent years, this simple statement could not be sustained without some elaboration, for it is open to an embodied-labor interpretation of value. That is, the statement is consistent with a system in which values are derived directly from the technical coefficients

of production, which among other things implies that value in terms of labor time can be deduced directly from the observation of labor-in-production. This treatment of value, in addition to making the arbitrary assumption of homogeneous labor, falls victim to the Sraffian "redundancy" criticism: if exchange values can be deduced directly from production coefficients, then deriving values in labor units is an unnecessary diversion (see Bandyopadhyay 1985).

The "redundancy" argument as such is less serious than other problems implied by the Ricardian approach. More theoretically worrisome, the embodied labor interpretation fails to capture a central feature of capitalist society, namely, that production techniques are not uniform for each commodity, thus are not in any sense "given." Treating techniques as given adopts the neo-classical method of considering production as purely a technical question, determined outside of the system. DeVroey has correctly described this approach as "naturalism" (DeVroey 1982). Similarly, Levine argues that assuming a system of given techniques is the epitome of Ricardianism. It is analytically parallel to explaining production and distribution on the assumption of given fertility of the soil (Levine 1981, Introduction).

We have two distinct problems here. One is the fact that different commodities are produced with different types of labor. The second is the fact that the same commodity may be produced with essentially similar types of labor, but under differing efficiencies in the use of those types of labor. The first issue—heterogeneous labor as such—has received more emphasis in the debate over the validity of the law of value (though the two are frequently subsumed or confused within the same discussion). The vehicle to deal with the two problems has been Marx's insight that commodities have a two-fold nature, and, therefore, that the labor that produces commodities also has a dual character. The group of writers that uses the two-fold nature of commodities to deal with the problems mentioned above I call the "abstract labor" school. There are important differences of emphasis within this school of interpretation, including differences over the sense in which labor has a two-fold nature.

II. PRIVATE AND SOCIAL LABOR: A CRITIQUE

Although many of the problems with which I subsequently deal are quite subtle, the central problem of value analysis is straightforward. One can state the problem clearly: (1) the labor carried out in production is heterogeneous (both in the sense of different types of skills of labor and different efficiencies in the use of labor); (2) commodities exchange *via* money, which expresses an equivalence among those commodities; therefore, (3) if we maintain that in reality the exchange of commodities is governed by their content of labor, then we must explain how heterogeneous labor-in-production (concrete labor) is expressed as homogeneous labor-in-exchange (abstract labor). To take an example, because

the work of carpentry is in fact different from the work of spinning cloth, how can we say that the rate at which chairs exchange for a length of cotton is determined by the labor time it takes to make each? Ricardo and Ricardians avoid this problem by presuming all labor to be the same (or reducible to such in some manner). It has become an identifying characteristic of Marxian value analysis to reject this approach. Yet the problem remains for the abstract labor school—how is heterogeneous production labor rendered into homogeneous labor in exchange?

Two more-or-less polar solutions have been offered within the abstract labor school of analysis. The first treats the metamorphosis from concrete to abstract labor as occurring in exchange. By this interpretation, the twofold nature of commodities involves the distinction between private and social labor. This distinction leads to a stress upon the necessity for private labor to be "validated" in exchange. This interpretation I call the "validation" argument, and is presented quite convincingly by Mohun (1984–1985). If one adopts this view, it becomes problematical indeed to treat value as arising or created in production, except in a tautological sense. Commodities must be produced; they have value (because they exchange), but they cannot be said, in Marx's words, "to enter the market with their values stamped upon them." Rather, it is the market that stamps them as values. If we follow this interpretation, exchange asserts itself as dominant over production in the formation of values, and the relation between value and production is said to be qualitative, but not quantitative. That is, because value is price, it cannot be said that value determines price. The essence of this interpretation is its stress on the necessity for labor-in-production to be transubstantiated into labor-in-exchange.

The second approach places the process of abstraction (particular to general labor) in production. It is argued that exchange renders concrete (private) labor abstract only in the formal and definitional sense of establishing equivalence. The real or essential process of abstraction occurs in production itself. In this, the "production" argument, exchange only reflects what has occurred *prior* to exchange, in the labor process. The essence of abstractness is the real homogeneity of labor created by the development of capitalism (Gleicher 1985). The argument is that as capitalism develops, workers are deskilled, rendered general labor in practice, and the equivalence of labor in exchange reflects its actual substitutability in the production of different commodities. By this analysis labor is rendered homogeneous in *production*, and this homogeneity is expressed (one is tempted to say, "merely" expressed) in exchange. Certainly the deskilling point is a valid one. Capitalism tends to eliminate artisanal labor, and a convincing argument can be made that this might be generalized as a process that renders the working class into a largely undifferentiated mass of laboring potential. It is a fact, for example, that a worker in his or her life may assume many jobs involving the production of many different commodities.

Much empirical evidence indicates that this second argument is correct. How-

ever, it does not refer to abstract labor, but to concrete labor. In effect, it accepts the neo-Ricardian interpretation that the major difficulty in relating labor-in-production to labor-in-exchange is the reduction of complex labor to simple labor. The abstract labor theorists are concerned with a different issue: how is social reproduction achieved in a commodity-producing society? In other words, one must explain how the labor performed in particular workplaces translates into the general, value-creating labor for capitalist society. This refers to the differing efficiencies in the use of labor by different producers. Whether workers are different or identical in fact or fantasy is not directly relevant to this question. The deskilling argument implies that concrete labor is rendered homogeneous over time, and in and of itself has nothing to say about *abstract* labor.

Recall that our purpose is to investigate the basis of relative exchange values within the Marxian methodology. Let us now turn to the validation theorists, and the reason for the identifying modifier, "validation," will become clear. I begin by referring to two quotations, the first from Himmelweit and Mohun, the second from Mohun. My critical comments are not intended to be a general rejection of the overall positions of these two authors. Both articles represent important contributions to our understanding of the law value. However, the interest here is in what is missing in their approach. First, consider the treatment of social labor,

It is the process of exchange on the market that manifests the social character of individual labors, establishes the social connections between independent commodity producers . . . (Himmelweit and Mohun 1981, p. 233).¹

Writing on his own, Mohun carries this argument further,

The answer to the question of how private labor becomes social labor does not lie in an analysis of the production process itself. . . . Only through exchange are the products of different labors commensurated, and hence only through exchange can it be determined *a posteriori* whether the concrete labors of a particular production process are to count as a portion of society's total labor and to achieve social validity thereby. . . . The moment of exchange is thus the critical one (Mohun 1984–1985, p. 401).

In both these quotations the reference is to private or individual labor, which implies that the product of that labor belongs to the producers. The emphasis that labor carried out in production is private I take to mean privately owned, and executed *individually*, not in direct concert with others.

Let us be clear about the argument being presented by the validation theorists. Value only expresses itself in exchange (price), and is only determinant *after* (a posteriori) exchange has occurred.² If this is the case, can value be said to exist separate from price as the determinant of price? Obviously not. This conclusion, that value has no determinate existence prior to exchange, rejects Marx's argument that price is merely the *phenomenal* form of value. No longer is value the hidden, underlying determinant of price. We have looked beneath the price form

and nothing was there to be found. Should we be repelled by this conclusion, Mohun seeks to reassure us, saying,

This is not to obliterate the distinction between value and exchange value [price]; nor is it to assert the domination of circulation over production (Mohun, 1984-1985, p. 401).

However, if words have definitive meanings, and Mohun is an author who writes with great clarity and careful choice of words, the distinction between value and price has been obliterated and the domination of circulation clearly asserted ("the moment of exchange is the critical one"; see above).

Valuable as Mohun's insights are, I argue that his specification of the value relation is flawed. Although value must by necessity take the form of price, it has an *ex ante* existence with regard to exchange. It is, I shall argue, the *underlying* determinant of price, unseen, but nonetheless real. Price itself is the superficial expression of production relations, where the term "production relations" refers to both the technological and social aspects of the labor process. The theoretical difference between this position and the validation argument has a clear origin. Those who equate price with value and, therefore, reduce value determination to exchange are in effect considering value in the context of simple commodity production, a situation in which value has no determining role.³ The difficulty of separating value and price disappears once one considers value in the context of capitalist production: that is, within the circuit of capital.⁴

Capitalist society is based on the separation of labor from the means of production, which implies the progressive destruction of petty-commodity or individual production by artisans and peasants. Capitalism throws workers together into workplaces in increasing numbers, where their labor is *collective* labor. The work of a laborer employed in a plant with a thousand other workers can in no sense be described as private, nor as individual, the terms used in the validation argument to characterize commodity-producing labor. Capitalist production involves collective, cooperative labor, *directly* social, consciously directed and controlled—the collective and cooperative power of the working class dominated by and subsumed under the authority of capital. That which is private and individual is not labor-in-production, but the commodity that is the result of the production process. Thus, labor-in-production itself is social labor; the collective, organic functioning of a *class*. It is the product of that labor, because it is a commodity, that is private, labor appropriated by a dominant class that must be exchanged as a commodity. At the highest level of abstraction, we can summarize the mistake of the validation argument by saying that it treats capitalism as a commodity *circulating* society (its appearance), rather than a commodity *producing* society (which is what it is).

Labor-in-production is collective, social labor, while labor in commodities is appropriated labor, private in form. This is the basic contradiction in capitalist society. Labor is carried out collectively, but is appropriated in the form of its

antithesis, private labor, the private property of the capitalist. It is for this reason that Marx commented that the worker's product presents itself to the worker as something alien to him or her, as the property of another. This, of course, is the fetishism of commodities. Social relations among people (the class relations of production) present themselves as exchange relations among inanimate objects (commodities). The collective labor of the working class appears as the private labor of individual capitalists. The value that workers create in production appears to gain validation from exchange. The all-pervasive illusions of commodity fetishism generate the impression that it is exchange that is the "critical moment" in the determination of value.

Let us now shift to a less abstract criticism of the validation argument. When one considers labor performed in different workplaces, it is not correct to see these different workplaces as being integrated through exchange. Rather, exchange is the form in which the underlying social integration of different workplaces is expressed.

That exchange is not the real integrating factor or moment in capitalist commodity production can be shown by first considering an absurd hypothesis: that the basis for the integration of different production processes is geographical proximity, how close they are together. Consider the production of an automobile. The workers (and the capitalists) involved in automobile production are directly linked to the production of steel, rubber, plastics, and so on. In some cases, all of these products are made under the same roof (the famous River Rouge Plant in Detroit). But the fact that the products are made in different locations, be it one hundred yards down the assembly line, across the street or far away, is largely irrelevant for their organizational unity from the point of view of a capitalist. Under capitalism the separation of the steps in the production process is a question of property and ownership. Two plants may be on different continents, but if they are part of the same ownership unit, then they are directly integrated. They may lie side-by-side and be "separate," "independent," if owned by different capitals.

The hypothesis that production units are integrated through exchange is equally absurd. Consider, on the one hand, a corporation that produces automobiles and also owns a steel plant; on the other, an automobile corporation that must purchase all of its steel from another, "independent" corporation. In both cases, the two products, steel and the automobile, are directly linked in a system of social reproduction. In the second case, separate ownership of the two production facilities (property relations of capital) creates the impression that these facilities are "independent." Exchange is merely the form that the distribution of these products must take in a commodity-producing (capitalist) society. In capitalist society exchange is the *general form* by which production units are socially integrated, but not the only form, since no commodity circulation as such occurs within the same ownership unit (though monetary bookkeeping entries are involved).

In effect, the argument that exchange is the mode of social integration is the consequence of viewing exchange as an isolated act among producers (competitors) of the same commodity, an analysis of what neoclassical economists call the "product market." Stressing the problem of "producers" selling their commodity in a market with other competing "producers," to the exclusion of considering the production links among "producers," is to treat capitalist commodity production as the simple circulation of commodities. Indeed, the very use of the term "producers" carries with it the obfuscations of the fetishism of commodities. For we are not in the contemporary world dealing with "independent commodity producers" (Himmelweit and Mohun 1981, p. 233), not even with capitalist producers, but with capitalist *nonproducers*, who appropriate the product of the working class, then must circulate it as a commodity. Further, exchange is only one historically specific manner in which this social labor can express itself. The same system of production could function in the absence of exchange (e.g., in socialist society).

Let me be clear about what has been established. Production occurs collectively in capitalist society; this is not an assumption or an interpretation, but a statement of fact. Different workplaces are interrelated through inputs and outputs, which derive from the nature of the products, not from exchange. Thus, exchange expresses the underlying social nature of labor and relates capitalists one to the other as the personification of the capital relation.

With this in mind, we can consider the question of exchange itself and the problem of the validation of labor-in-production. Implicit in the formulation of Himmelweit and Mohun, and explicit in the work of DeVroey, is the argument that labor-in-production must be validated in exchange. That is, when the capitalist organizes production and oversees the execution of the work process, the value of a commodity is not determined; rather, one must await the moment of exchange in order for the labor-in-production to be endorsed by the market as social. Let us accept this formulation of the problem, though the validation argument presents a stylized view of the commodity seller suspiciously akin to the neoclassical concept of a "price-taker." That is, it implicitly characterizes the capitalist as facing a market situation over which he/she has no control, and whose decision must be accepted passively.

It is certainly correct that value implies validation, but this does not in turn imply that value determination is subsequent to exchange. For when a capitalist comes to sell his or her commodity, the labor which went to produce it has *already been validated by exchange*. This point, which I have made elsewhere and has been explained concisely by Shaikh (Shaikh 1985; Weeks 1981, Chap. 2), can be demonstrated by first considering a hypothetical case of simple commodity production in which the independent producer purchases none of his or her inputs. In this case, when the producer comes to sell the product, he or she has no idea what its value will be (except on the basis of past knowledge of the

market for similar products). This is because the elements of production have not had to stand the test of exchange, but entered the production process as use values, not as commodities.

The situation is entirely different for the capitalist. In this case, all of the ingredients of production (except those provided directly by nature and the working time of the capitalist) have entered the production process as commodities, as values. The ingredients of production represent *validated labor, abstract labor*. For a capitalist producing automobiles, the steel in the automobile is validated as abstract, socially necessary labor when bought, as occurs in the case of the automobile itself when it is sold. The sale of the product represents the attempt by the capitalist to *recapture* value, not *establish* value. Whether the capitalist will be successful in doing so takes us into the analysis of aggregate demand failure, which lie beyond the scope of this note (see Weeks 1982, 1983).

I have criticized the formulation of abstract labor as presented in the validation argument, but this criticism should not be interpreted as general disagreement. Indeed, my overall interpretation of the law of value is quite close to that of Himmelweit and Mohun, so the commentary is intended to be a constructive one. I conclude this part by suggesting the origin of the difference between my approach and the validation argument. The problem of the validation approach is that it incorrectly distinguishes the twofold nature of commodities. Commodities are, on the one hand, objects of use; on the other, objects of exchange. This implies a twofold character for labor: that it is both use value producing (concrete labor) and value producing (abstract labor). Although this distinction is certainly noted, and even stressed in Himmelweit and Mohun, it quickly becomes subsumed under a distinction between private and social labor, with the consequence that the more fundamental distinction becomes lost.

The concrete versus abstract dichotomy is the basic one in capitalist production, while private versus social is a distinction in the sphere of exchange and distribution. Validation refers to the conversion of concrete labor into abstract labor, which involves not just the sale of the commodity, but also the capital advanced for the ingredients of production. The private versus social distinction refers to the contradictory appearance of collective labor as labor-in-production, on the one hand, and as objectified in commodities, on the other hand, with the latter being the vehicle for private appropriation.

The consequence of the validation approach is to be left with no value theory at all. Price is value, and therefore price is indeterminate, set by conditions of demand. This is an unsatisfactory conclusion, for it abandons any serious attempt to account for the quantitative aspect of exchange. Two routes are open to the validation theorists: either they can discard the law of value as a dead end (the advice of DeVroey), or they can turn to general equilibrium theory as the Uno school as done.

III. VALUE AND GENERAL EQUILIBRIUM

The Uno school of Marxism seeks to resolve the difficulty of the validation theorists in the tradition of Walras. I take as representative of the school the approach of Sekine, for he is quite clear in his use of equilibrium analysis. For the basis of my critical remarks to be clear, I begin with what I hope is a faithful rendering of his analysis, which he presented in a 1984-1985 article in the form of a rhetorical "seminar." After defining value (question 1, "what is value . . .?") and introducing the "value form" (question 2, "what does the value-form theory do?"), he turns to the issue of money and the measure of value ("what is the measure-of-value function of money . . .?"—question 3) (Sekine 1984-1985, pp. 419-422). In this discussion we are told the sense in which values determine prices, and it is necessary to follow the presentation in some detail. He assumes at the outset that there is something called "the market," and producers arrive at this market with an endowment of commodities.

All commodities appear in the market with supply prices which their sellers (owners) quote tentatively in expressing their values. The owners of money, representing the force of demand in the market, buy immediately if the price is low and temporize if the price is high. This compels the sellers to increasingly adjust [sic] their supply prices to demand prices. . . . The price at which the commodity is sold varies . . . but eventually settles to a normal level. . . . What I call a normal price is, in fact, the same thing as an equilibrium price (Sekine 1984-1985, pp. 422-423).

We are, however, cautioned that the process described does not imply "that commodity values are proportional to normal prices."⁵ Here in a formal statement is the type of exchange behavior that the validation theorists have in mind, individual commodity producers/sellers meeting in a market, seeking to discover if what they have produced will be validated in social commerce. The quotation from Sekine involves a model of economic behavior that has the following characteristics:

1. Sellers come to the market with a given endowment of commodities. This must be the case, or the subsequent trading prices are indeterminate, because the "normal price" is derivative from particular quantities offered by sellers. Because quantities supplied are set, we are dealing with a "market period" in which no production occurs.
2. All potential buyers and sellers are in the market (no exchanges take place outside of it). This also must be the case if the process is to produce a determinate price.
3. Buyers and sellers respond to excess demand (price of a commodity "too low") or excess supply (commodity price "too high") by adjusting price, "groping" for a market-clearing set of relative money prices.

4. The outcome of this "groping" is a set of equilibrium prices, for which all buyers and all sellers are satisfied, in the sense that when the "normal price" is reached no one wishes to recontract.

The model of economic behavior that Sekine has described is well-known in neoclassical economic theory: Walrasian general equilibrium analysis. Also well-known are the conditions under which this model will generate an equilibrium price vector ("normal prices"). And these conditions are so restrictive that an entire school of mainstream economics had abandoned the model in the 1960s and early 1970s,⁶ though the rightward shift of the profession brought it renewed political (but not intellectual) respectability.

The determining characteristic of this model is that it involves a multicommodity system and reaches an equilibrium state in which there are no excess demands or excess supplies (commodities are not "overproduced" or "underproduced"). It is beyond the scope of my discussion to do justice to the theoretical critique of the Walrasian system, but I shall indicate the most telling points. Of the many critiques of the model, Clower's, made almost 25 years ago, is the seminal and devastating (Clower 1965). It is to be noted that equilibrium in the model requires that there be no excess demands or excess supplies ("Walras' Law"). However, as Clower shows, the demands and supplies that must be equated are not *actual* (often called "effective") ones, but *notional* demands and supplies, that is, the ex ante plans to buy and sell by the participants in the market. Only when notional demands and supplies are matched is the market in equilibrium.⁷

This has a profound and devastating implication for the model: equilibrium cannot be achieved if *any* trades occur at nonequilibrium prices (see Leijonhufvud 1968, chap. 2). Walras himself recognized this basic contradiction in his model, and offered as a solution what must rank as one of the more charming and ludicrous *deus ex machina* in the history of economic thought. To avoid any disequilibrium trading, this hypothetical market for all commodities is provided with an "auctioneer," whose task it is to call out various vectors of relative prices, then adjust them if supplies do not match demands. As a part of this process, the auctioneer draconianly enforces the rule that no trades can be made until *all* commodity prices are in equilibrium (Harris 1981, pp. 271-272). If disequilibrium trading occurs (called "false trading"), the result is by definition "quantity responses" (buyers and sellers adjusting their notional demands to effective demands), rather than "pure" price responses (adjusting prices according to notional supply and demand). The consequence of disequilibrium trading is cumulative movement away from the general equilibrium price vector, rendering the clearing of markets impossible.

Furthermore, "false trading" only begins a long list of contradictions within the Walrasian model. To mention two others, it appears that only under the most restrictive assumptions is Walras' Law (all excess demands and supplies zero)

consistent with money exchanges. Indeed, only with great agility can it be shown that money plays any role in the model (Harris 1981, pp. 289ff). Finally, when the system is not in equilibrium, buyers and sellers no longer take prices as given, since they must adjust their offer prices to meet the excess demands, and are no longer price-takers. But at the same time these prices must confront traders as "parameters" in order that there be no quantity adjustments (which have the consequences mentioned above).⁸ It is this apparent contradiction that is resolved by the mythical auctioneer.

All of these criticisms are well-known by neoclassical economists—and well-recognized by the practitioners of Walrasian models. The best of these economists, Hahn (1981), for example, concede that the model is only consistent when in equilibrium, and provides no vehicle for the analysis of adjustment processes when markets are out of equilibrium. Sekine (1984–1985) seems unconcerned with this extremely restrictive nature of the model of value determination which he employs. Further, his formulation of it is logically inconsistent. Because he permits disequilibrium trading ("the price at which the commodity is sold varies from time to time"), his own postulated process does not converge on equilibrium ("settle to a normal level").

Even should Sekine reformulate his model so it is consistent, the law of value is indeed in great theoretical difficulty if it must be developed within a Walrasian general equilibrium framework. This would represent a major step backward, embracing a model that the best of the neoclassical economists consider applicable to a very narrow set of problems. How far back we would be taken can be shown by indicating the extremely restrictive nature of value ("socially necessary labor") in his model. In his framework, "socially necessary labor" does not refer to the labor time necessary to produce a *unit* of a commodity under average production conditions (Marx's definition), but rather to the total labor time necessary to produce the *entire supply* of a commodity *when the markets for all commodities are in long run equilibrium*.⁹ Such a definition of value is indistinguishable from the neoclassical concept of long-run supply prices in perfectly competitive equilibrium, a situation in which even neoclassicals would agree that the cost of producing commodities can be reduced to their labor content. At most, the labor theory of value becomes a subset of neoclassical value theory, the special case of fixed coefficients of production.

We can now develop further the close link between the views of the validation school and those of Sekine's rendition of the Uno interpretation of the labor theory of value. Assume, for example, that apples sell for one dollar in the morning and ten dollars in the afternoon. Following the validation argument, we would have to say that in each exchange the value of apples is expressed with equal validity. To escape the tautology of appearances, one must introduce some concept of "normal" price (or perhaps "value-price"), around which observed and occasional fluctuations move. Because the validation argument has rejected the sphere of production as the "critical moment," it is left with Sekine's Walra-

sian general equilibrium as a haunting familiar. DeVroye recognizes this. Holding to the validation argument, but rejecting the world of general equilibrium as a relevant framework in which to analyze capitalism, he abandons value all together.¹⁰ One might say that by their stress upon the theory of the *form* of value, the validation writers have lost any analysis of the *essence* of value and thrown themselves into nihilism or the arms of the general equilibrium theory.

IV. ALTERNATIVE TO EQUILIBRIUM ANALYSIS

The concept of equilibrium is an essential ingredient in neoclassical economic theory. Presentations of Marx's analysis as if he, too, were an equilibrium theorist are quite common, not limited to Sekine's rendering of the Uno School. I conclude by treating this question, in particular whether capitalism is correctly viewed as a system tending toward equilibrium. Prior to doing so, I must clarify several points.

First, capitalist society tends to reproduce itself; that is, it does not continuously demonstrate a tendency toward systemic collapse. On the contrary, violent fluctuations are relatively rare. For the most part, the production and circulation of commodities result in the gainful employment of the vast majority of the laboring population, the survival and even expansion of most capitalist enterprises, and most important, the reproduction of the class relations of capital. On the other hand, capitalist society is subject from time to time to extreme instability, which takes the form of high levels of unemployment, accumulations of unsold commodities, and inflation in the exchange value of money. One's analysis must account for both the relative stability and the manifestations of instability.

Explaining the first, stability, does not imply equilibrium analysis, for equilibrium is a construction of the mind, while the relative stability of capitalist reproduction is an aspect of reality that cannot be denied. To an extent, one can account for the relative stability with neither a theory of the value of commodities nor a theory of accumulation. First, there is a tendency for the production of commodities to adjust to their sales: if inventories build up excessively, production is reduced; if unfilled orders accumulate, production expands. Capitalists do not react in this manner will not continue to produce for long.

However, this tendency for production to adjust to sales is not the same as market equilibrium, or even the same as market clearing. It is a generalization based on what actually occurs—capitalists do not tend to expand production when sales are falling. When we look at the system as a whole, we see that the tendency to adjust does for the most part result in a rough stability (for example, between production and inventories).

On closer inspection, this real tendency for production to adjust to sales proves to be quite complicated. One complication is to account for how the actions of

individual capitalists relate to the reaction of the aggregate. It is not valid to presume that the sum of individual reactions will be stabilizing. A second complication involves sales, for the actual sales realized are not necessarily the only information that the capitalists have upon which to base their expectations of the future. At this point one enters the realm of theory, in which terms such as "sales" take on a meaning other than a strictly empirical one.

Neoclassical equilibrium analysis involves specifying behavioral relationships such that the tendency for production to adjust to sales can be interpreted as a mechanism which tends to bring the system to *harmonious rest*. That is, it interprets relative stability (absence of imminent collapse) as implying general and harmonious interaction, and that the system tends quickly and smoothly to correct any imbalances. This interpretation is achieved by creating certain ideal constructions, such as the "market" for a commodity. The so-called "theory of rational expectations" is the most extreme and ideological form of this metaphysics.

In reality, commodities do not exchange in "markets," be they neoclassical or Marxist ones, but in a multitude of transactions separated in time and space. The concept of "market" for a commodity involves collapsing actual exchanges in time and space, so one can proceed with the fiction that buyers and sellers confront each other directly, all at the same moment, all receiving the same "signals." Such an arrangement is a purely ideal construction, having no relation to the actual process of buying and selling.

In the absence of this fanciful market, the concept of equilibrium is dubious, since transactions are an on-going process that is never at rest. This is the way in which transactions are treated in Marx's analysis. In the first chapter of the first volume of *Capital* he stresses that sale and payment are separate acts when exchanges involve credit, a real distinction, not a creation of the mind. This approach involves the use of money as means of payment as well as means of circulation, and places exchanges in chronological time. In Marxian analysis there are no demand or supply schedules, no short-run equilibrium prices, and no market clearing, because there are no fictitious markets that are the basis of these concepts, and notional demands and supplies play no role. Certainly, there is analytical simplification (abstraction) in Marx's treatment of exchange. However, the simplification is achieved through analyzing the exchange of commodities within the circuit of capital (as commodity-capital), not by presuming them to exchange in a hypothetical, timeless setting (which they do not).¹²

Having considered capitalists' adjustment to demand fluctuations, let us turn to another immanent tendency, the movement of capital in response to difference in rates of return. This tendency is not assumed, but exists, as a reflection of the development of capitalist institutions. In contemporary capitalist society, large corporations are basically financial entities, and the material nature of the product in which they invest is a matter of indifference.

Again, this actual tendency takes on a fantasy life in neoclassical theory. The

movement of capital is treated in the absence of technical change, so that investments involve entry into an industry with existing techniques in conformity with the assumption of the "representative firm." The logical consequence of this, when combined with appropriate assumptions about "long-run cost curves," is the expansion of output in a context of harmonious interaction of capitals. Something of the sort is implicitly assumed by Sekine, or he could not reach a general equilibrium solution in his model.

Marxian analysis could not be more different. Each industry is the result of historical development, so that in each there are capitals utilizing fixed means of production of different vintage, involving different unit costs for the commodity they produce. This implies that the capitals in an industry do not all earn the same rate of profit, which, of course, is the case. The movement of capital in response to differential profit rates is typically executed by investing in the technique that provides the invading capital with the strongest competitive position. In consequence, the movement of capital in response to differential profit rates is disruptive to the system. It is the carrier of technological change, which devalues the existing means of production in an industry and intensifies the competitive struggle. What serves as an equilibrium mechanism in neoclassical theory is a destabilizing process in Marxian analysis. It is the introduction of technical change into the analysis that eliminates any concept of equilibrium. At its basis, equilibrium is a concept relevant only to exchange divorced from production. Once one enters the sphere of production, the concept becomes counterproductive to thought.

The above discussion brings us to the question of competition. Here the contrast between ideal states and real processes is quite clear. With regard to any one commodity, the process of competition involves the struggle over shares of the market, and this struggle is implemented in a number of ways, one of which is price competition. This is precisely what Marxian analysis is able to consider, because its theoretical treatment of an industry incorporates the uneven development of capital. In contrast, neoclassical analysis of competition defines competition in order to eliminate the possibility of conflict. A "perfectly competitive" industry is one in which all firms are price takers and none has efficient installed capacity to expand and affect price and, therefore, affect the market share of any other firm. In other words, the competitive struggle has been wiped away—by assumption there is no price competition and by assumption there can be no struggle over market shares (for an excellent discussion, see Hahn 1985). The result is a harmonious equilibrium, not because the industry is competitive, but because competition is excluded.

In summary, one can say that in Marx's analysis the possibility of the system being "at rest" is precluded, because the tendencies for production to adjust to demand and capital to move in response to differential profit rates do not have the effect of eliminating the cause of those tendencies. They are not self-correcting mechanisms. Particularly in the case of the movement of capital among indus-

tries, the result is to *reproduce* the cause of the tendency. Thus, the movement of capital is an adjustment process that does not result in correction of the initial impulse to adjustment; on the contrary, it reproduces the impulse.

We have seen that the validation argument leads one down a road away from the sphere of production, to a point where value merges with price, and the escape from this tautology of exchange seems to be equilibrium theory. It may or may not be that the neo-Ricardians have some validity in their argument that values are redundant. But their arguments will not be countered by a treatment of value in which exchange is the "critical moment." Above all, the law of value must derive from the insight that capitalism is primarily a commodity *producing* society, and only secondarily a commodity *exchanging* society. Fruitful advances in value analysis will be made by formulating the issues in terms of the circuit of capital, not simple commodity circulation.

NOTES

1. DeVroye also makes the validation argument:

The main feature of the commodity system is that here social labor is formed in an indirect way. Labor is first performed as *private labor* . . . It is transformed into social labor . . . only through the sale of its product (DeVroye 1981, p. 176).

2. DeVroye (1982, p. 184), makes the same point with clarity: "this [validation argument] implies that abstract labor is logically posterior to exchange."
3. The issue of the theoretical and historical relevance of petty (or simple) commodity production is a complex one which lies outside of the scope of this paper. I wish to thank David Laibman for comments which led me to correct and temper my reference to petty commodity production.
4. Marx himself explicitly recognized the mistake involved in the private/social dichotomy. In Chapter I of Volume I of *Capital* he abandoned his earlier usage of this dichotomy in favor of the concrete/abstract dichotomy. His earlier approach is found in a manuscript entitled "The Commodity" (reprinted in Dragstedt 1976), where the editor does not comment on the contradiction of this approach with that in *Capital*.
5. Because prices are measured in units of money ("the measurement of value thus occurs when physical money acts as means of purchase," [Sekine 1984-1985, pp. 422-423]), and values are measured in some other, but as yet unspecified units (unless price is synonymous with value), it is unclear what "proportional" might mean in this context. Some version of general (abstract) labor is being implicitly assumed here in the third question.
6. This is the "reappraisal" school, whose members are sometimes called "post-Keynesians" or the "new Keynesians." For an excellent discussion of Walrasian general equilibrium theory and its critics, see the survey of bourgeois monetary theory by the British Marxist Laurence Harris (1981, chaps. 4, 13).
7. These cumulative effects involve the famous "multiplier." See Leijonhufvud (1968, Chap. 2) and Harris (1981, Chap. 13).
8. The contradiction in the model between agents being active price-setters in disequilibrium and passive price-takers in equilibrium is explained well in (Leijonhufvud 1981, chap. 4). The discussion in this and previous paragraphs leads me to disagree with Mohun when he writes, "while neoclassical theory . . . is certainly consistent, it is also the case that its consistency is achieved at the expense of

a notorious air of unreality" (Mohun 1984-1985, p. 395). Neoclassical self-criticism has shown that the theory, of both microeconomic and macroeconomic general equilibrium, is both unrealistic and inconsistent.

9. Sekine states this quite clearly:

When commodities are produced in socially necessary (equilibrium) quantities, i.e., are neither overproduced nor underproduced, we say that "socially necessary labor" has been spent for their production. Hence, a precise statement of the labor theory of value is that socially necessary labor forms the substance of commodity values (1984-1985, p. 423).

10. This is to be found in DeVroye's recent writings in French, but his concern that Marx might have been an equilibrium theorist appears in *Capital and Class* (1982). The validation argument has been a strong current in French political economy in recent years, and led to a mass-migration away from value theory, with a few notable exceptions, such as Suzanne DeBrunhoff.

11. Harris (1981, p. 271) has an excellent discussion of the absence of time in Walrasian markets.

12. Marx used the term "market price," of course, but this no more implies for him an idealistic concept of markets than neoclassical theory's use of the word "value" implies the labor theory of value.

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