

An Anarchist Critique of Marxism

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Marx's Theory of Capital, Part II



Note to readers: This article is the continuation of a piece that appeared in the previous issue of this publication. There I sketched the role of the theory of capital in the Marxian worldview, Marx's method of investigating capitalism and the initial components of his theory. These included his analysis of commodities, his conception of value and his understanding of the nature of exploitation under capitalism, the production of surplus value. I also discussed some of the implications of Marx's approach and worldview. My main contentions in this regard are two: (1) that Marxism is a philosophic doctrine, rather than a scientific theory, as Marx claimed; and (2) that the belief in its scientific nature, particularly Marxism's insistence that socialism is the "necessary" outcome of history, and the strategic steps that follow from Marxist doctrine, lead Marxists to establish totalitarian regimes instead of the liberated—classless and stateless—societies that Marxism advocates and predicts. In this article, we will focus on the crux of Marx's theory, his analysis of capital. I would like to remind readers of what I wrote in the first

installment of this essay. I do not claim to be able to prove my contentions about the nature of Marxism. What I am putting forward is my own interpretation of what Marxism is and why it has led to the historical results it has. In addition, I do not pretend to cover the entirety of Marx's vast and elaborate theory. A great deal of his analysis, for example, his treatment of the reproduction of capital, and of rent, commercial capital and fictitious capital, that is, much of the material found in volumes 2 and 3 of *Capital*, has been either omitted or touched on very briefly. I have instead focused on the focal point of Marx's theory, his conception of capital.

IV. THE ACCUMULATION OF CAPITAL

To understand Marx's analysis, it is essential to remember that in the Marxist view, all class societies are based on exploitation, the appropriation of an economic surplus, produced by a laboring class or classes, by a non-laboring

ruling class. This surplus consists of a portion of economic production above that necessary to maintain the laboring class and to enable it to reproduce itself.

Although capitalism, like other class-divided modes of production, is based on exploitation, the precise nature of this exploitation is unique. Under social systems that existed prior to capitalism, such as ancient slavery and feudalism, exploitation took explicit, obvious forms: either the open appropriation by the exploiting class of the specific surplus product produced by the exploited class or the direct utilization of its surplus labor. In contrast, exploitation under capitalism is hidden, occurring through the exchange of commodities of apparently equal value. It is through this exchange that the capitalist class appropriates a surplus of abstract, general labor (value), what Marx calls surplus value.

Yet, according to Marx's theory, it is not merely the nature of this surplus and how it is produced that are unique to capitalism. How this surplus is utilized also distinguishes capitalism from previous systems. In those societies, the surplus was primarily dedicated to the consumption of the exploiting class, as well as to the maintenance of its rule, e.g., the state and military. Under capitalism, in contrast, most of the surplus value is reinvested in production. There it is used to expand and modernize the process of production itself, usually in the form of more and improved machinery and other means of production. In doing so, the capitalists' goal is the production of ever greater amounts of surplus value. In contrast to earlier systems, whose motto was "production for the sake of consumption," capitalism's motto is "production for the sake of production." Marx put it this way:

...as personified wealth he [the capitalist—RT] produces for the sake of production, he wants to accumulate wealth for the sake of the accumulation of wealth. Insofar as he is a mere functionary of capital, that is, an agent of capitalist production, what matters to him is exchange-value and the increase of exchange-value, not use-value and its increase. What he is concerned with is the increase of abstract wealth, the rising appropriation of the labor of others. (Karl Marx, *Theories of Surplus Value*, Part I, Progress Publishers, Moscow, 1969, p. 282.)

This increasing production of abstract wealth (value) occurs in the following way.

THE PROCESS OF ACCUMULATION

According to Marx, each capitalist is driven by the pressure of competition to increase the production of surplus value, the source of his/her profits. He/she can do this in two ways (which are not mutually exclusive).

First, he/she can lengthen the working day. Since the amount of time needed to maintain his/her workers (and their families) during that day—what Marx calls necessary labor-time—remains the same, the extra hours the workers now work increase the surplus labor-time, which is the period during which the workers produce surplus value. As a result, the workers produce more surplus value, which the capitalist keeps. Marx calls this the production of "absolute surplus value," which, in Marx's view, came first in the history of capitalism. However, for a variety of reasons (the fact that the working day can be extended just so far; the fact that the workers, through struggle, eventually succeed in shortening the workday), this method was found to be limited. The capitalists then resorted to the other method of increasing their surplus value, one that is characteristic of mature capitalism.

In competition with his/her fellow capitalists, each capitalist is driven to lower his/her costs of production. He/she can then produce more commodities for the same overall cost, enabling him/her to lower prices and sell more commodities than his/her competitors, thus increasing his/her profits. The capitalists can reduce costs with their current machinery by lowering wages and speeding up the pace of production. But these methods have their limits, among other things, the fact that the workers can work just so hard, while their standard of living cannot be lowered indefinitely if they are to be able to survive, let alone work.

A more effective way for the capitalists to lower costs is periodically to modernize their production processes by purchasing new, more efficient plants and machinery. This enables the capitalists to produce more commodities in a given period of time using the same number of or even fewer workers. The net effect of this modernization is to

lower the value of the labor-power of the working class. In other words, because the new plants and machinery, etc., increase the productivity of labor, the workers can now produce the amount of value necessary to sustain themselves and their families for a given period in less time than previously. For example, if before, the workers could produce enough value to sustain themselves and their families for one day in four hours of work, now they can do so in, say, 3 1/2 hours. As a result, for any given workday, the capitalists can pay the workers a smaller percentage of the value the workers produce in that day and thereby increase the amount of value they (the capitalists) keep.

In Marx's terminology, the capitalists have lowered the amount of necessary labor-time and increased the amount of surplus labor-time of the working day, enabling them to appropriate greater amounts of surplus value. In contrast to what occurs in the production of "absolute surplus-value," Marx denotes this the production of "relative surplus-value."

Under competitive conditions, this is a more or less continuous process. (Actually, it tends to occur in cycles, which is one of the reasons for the cyclical nature of capitalist development, its periodic crises.) In other words, the increasing amounts of surplus value produced by the workers are not primarily consumed by the capitalists but instead are invested in the production process to modernize the means of production. This results in the production of yet more surplus value, which is reinvested in production, which produces yet more surplus value, etc., etc.

Over time, several things result: (1) the capitalist economy experiences the periodic modernization of its means of production; (2) there is an increase in the capitalists' relative investment in what Marx calls "constant capital" (machines, tools and raw materials), compared to "variable capital" (labor), or what Marx describes as an increase in the "organic composition of capital;" (3) the relative weight of the industries producing the means of production (what Marx calls Department I) increases compared to those producing the means of consumption (Department II); and (4) there is an increase in both the amount of surplus value produced and in what Marx calls the rate of exploitation or the rate of surplus value, that is, the ratio of surplus labor-time to necessary labor-time.

As one can see, the process described here is cumulative.

The ever-greater amounts of surplus value that are produced are accumulated in the hands of the capitalists and become capital. This capital is continually reinvested to produce more surplus value and to increase the capital owned by the individual capitalists and the capitalist class as a whole. Yet, the working class, whose labor, in the Marxist view, is the sole source of value, surplus value and thus of capital, remains a class of propertyless proletarians who must sell their labor-power to survive.

In Marxist terms, capital is accumulated "dead labor" that dominates "living labor." It consists of what Marx calls the "material means of production"—factories, machines, tools and raw materials—which are products of living human labor. This labor, however, is now "dead," that is, it is "congealed" in non-living objects, and dominates "living labor," the proletarians. The workers are subordinated to capital; their labor, indeed, their very existence, is subordinated to and serves the needs of the production and accumulation of capital, their own accumulated dead labor. The workers thus confront their own productive capacity as an alien entity that stands over them, dominating and oppressing them. As a result, the more productive human labor is, the more this increases the power of capital (and the capitalist class that owns and controls it) over the workers, the living embodiment of labor, themselves.

...Capital is not a thing [writes Marx], but rather a definite social production relation, belonging to a definite historical formation of society, which is manifested in a thing and lends that thing a specific social character. Capital is not the sum of the material and produced means of production. Capital is rather the means of production transformed into capital, which in themselves are no more capital than gold or silver in itself is money. It is the means of production monopolized by a certain section of society, confronting living labor-power as products and working conditions rendered independent of this very labor-power, which are personified through this antithesis in capital. (*Capital*, Vol. 3, International Publishers, New York, 1967, pp. 814-815.)

This, rather briefly, is Marx's conception of capital. In his view, the accumulation of capital not only constitutes the essence of capitalist production, it is the foundation and determines the very nature of capitalist society as a whole,

including the state and other political and social institutions, and the entire realm of intellectual life. Not least, it is the internal dynamic of this process—what Marx called the “laws of motion” of the accumulation of capital—that determines how the capitalist system develops and why and how it will ultimately be overthrown and replaced by socialism/communism.

HUMANITY DOMINATED BY ITS PRODUCTS



In my opinion, Marx’s conception, if understood in a broader and more metaphorical sense than he suggests in his economic writings, makes a lot of sense. Although he developed it (he borrowed the concept from Hegel and his disciple, Ludwig Feuerbach) in reference to the economic structure of society, it also applies to other aspects of social life. In other words, the domination of labor by capital, or what Marx calls the capital-labor relation, is merely a specific example or facet of a more general social phenomenon, the tendency of humanity to be dominated by products of its own making. Looked at this way, capital consists of products (the means of production) of human activity, which, under the control of an elite, dominate the majority of people. The same can be said of other institutions, particularly the authoritarian ones, that have existed in human society throughout history.

The state, for example, is a creation of human beings, yet since its inception, this institution has been an instrument

of the oppression of the vast majority of people who have lived in state-dominated societies and therefore, in a sense, humanity as a whole. Religion, the particular subject through which Feuerbach elaborated his version of this idea, is another example of the same phenomenon. In fact, all exploitive economic and political structures, as well as social and cultural institutions, religions, philosophies and ideologies, can be seen as creations of human beings which dominate them and govern their lives. (This is, in fact, the underlying idea of the entire corpus of Marxism, put forward explicitly in Marx’s early writings and remaining implicit, as a kind of subtext, throughout his later, supposedly scientific works.)

To me, then, Marx’s theory makes a great deal of sense if it is taken in a metaphorical way. But it is important to understand that this is a philosophical conception, not a scientific one. In other words, it is a matter of opinion, not scientific demonstration or proof. Among other things, it is so general and so wrapped up in arguable definitions, value judgments and implicit notions of human nature that it cannot be subject to scientific testing. What does it mean, for example, to say that humanity is dominated by its products? This implies a conception of human nature that is somehow at odds with the institutions and other entities human beings have created—the state, the economy, religion, culture—in short, the entirety of human society. But what if these products, rather than being at odds with, somehow contrary to, human nature, are an accurate reflection of that nature? If so, then human beings are not dominated by them, but rather live by and through them; indeed, it can be argued, our lives have been made better by, and would not be even possible, without them.

By the same token, the idea that humanity is dominated by its products implies that human beings are capable of creating a new kind of society in which this domination will not occur. But, like the question of human nature as a whole, this notion cannot be demonstrated scientifically. How would one go about it? What kind of test or experiment or test could be set up to do so? The entire question is integrally bound up with fundamental beliefs and values, with choice of worldview, and cannot be resolved through recourse to science. In other words, it is an unprovable proposition.

Like his overall worldview of which it is a part, Marx's analysis of capital has this same philosophical character. It is apparent in his very starting point, his definitions: commodities consist of "congealed labor" whose value is determined by the amount of labor that is "embodied" in them; capital is "dead labor" that dominates "living labor." How can these propositions be scientifically established? When we open up a commodity, say, an article of clothing or a machine, can we see or otherwise discern, measure or weigh, this congealed labor? Obviously not. Then how can we test or verify his theory scientifically, or disprove it? Despite this, Marx insisted on presenting his theory as a scientific one, rather than a philosophic conception.

Of course, Marx was not alone in his overly generous definition of science. Many of his contemporaries, particularly those involved in the study of social questions, shared the same penchant. But we can now see that their attempts to develop truly scientific theories of society, comparable, say, to the laws of physics, were too ambitious. Perhaps I am being too narrow or demanding in my definition of science. Some might argue that since Marx was dealing with the social world, not the realms of physics or biology, and since the conceptions and theories with which the social sciences deal do not lend themselves to the level of proof or demonstration available to the other, "hard," sciences, it is unfair to hold him and other social theorists to the same standards we apply to those sciences. Like other works in social science—this argument might continue—Marx's work is scientific in the sense that it is a methodical and internally consistent investigation of certain phenomena that has great explanatory value. While I myself question whether the social sciences deserve to be called scientific at all, to avoid a fruitless debate over definitions I suggest that one way to clarify this issue is to make a distinction between a scientific *study*, that is, one that is thoroughly investigated and methodologically consistent, and a scientific *theory*. Thus, even if we accept that Marx's work is scientific in the former sense, his analysis of capitalism does not add up to a scientific theory. What is crucial here is that we be careful lest such social theories be used to try to prove something they're not capable of. The social sciences are notoriously poor in predicting human

behavior—individual and social—outside of very isolated, narrow and controlled (that is, where all but one or two variables have been eliminated), settings. As a result, Marx's contention, cited in the first part of this article, that he had proved, that is, demonstrated scientifically, that the internal logic of capitalism necessarily leads to its overthrow and to the establishment of the dictatorship of the proletariat is false.

But let's look more carefully at Marx's analysis of capital and see how it fares in this regard.

CAPITAL: NOTHING BUT CONGEALED LABOR?

As we saw, Marx defines capital as "dead labor" that dominates living labor. He also tells us that this dead labor is congealed (as all commodities are congealed labor) in the "material means of production" that are used to pump surplus labor out of the direct producers, the workers.

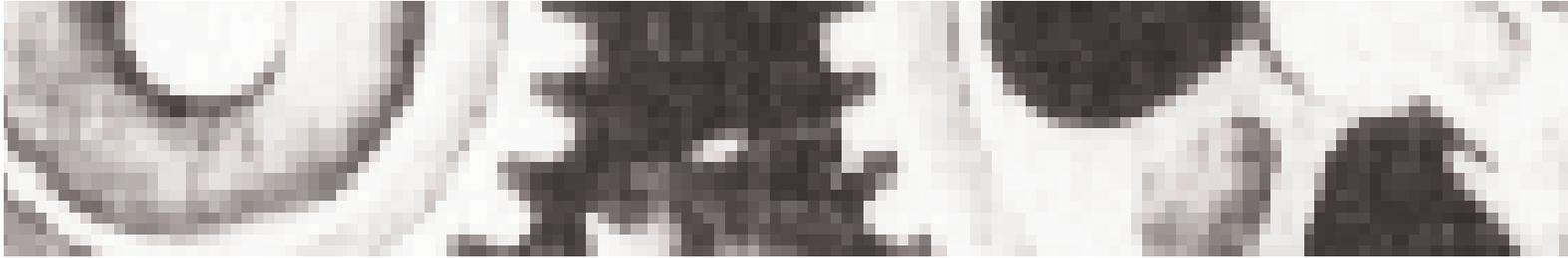
At first glance, this appears to be reasonable, yet further thought reveals a problem. On the one hand, we are told that the means of production are material. The commonly understood meaning of this would be that the means of production—factories, machines, tools, raw materials—are made up of matter, such as metal, wood and other palpable—sensible, weighable, measurable—substances. And this does appear to be the case. On the other hand, we are told that the means of production are congealed labor. Somehow, it would seem, the labor is congealed in the matter (or, better, as the matter) that makes up the means of production. In that case, the means of production would be both labor and matter. But, then, how can they be defined simply as congealed labor? What happens to the matter?

Part of the problem lies in Marx's eccentric (that is, philosophical) definition of labor. To me, and I suspect to most people, labor is a process, by and through which material substances are transformed into forms that are more directly useful to human beings, usually with the help of material implements. Insofar as the labor is carried out by material entities (human beings), and is carried out on and with material entities (raw or processed materials,

tools, machines, etc.), to that extent it may be termed material. But when the labor process is concluded, the labor is gone; it has transformed the material products, but no longer exists. It isn't "congealed" anywhere. To the normal way of thinking (at least to my way of thinking), Marx's congealed labor is either just a metaphor, or it is, as I suggested in the first part of this article, a kind of Idealist philosophical substance, a fundamental essence that can inhere in something, indeed, is its very founda-

labor, when they are actually engaged in exploiting workers, or, more broadly, when they are owned by capitalists. But this only makes the philosophical/metaphorical nature of Marx's conception more glaring. Somehow, the material entities that constitute the means of production magically become congealed labor when they are used to exploit workers or are owned by capitalists.

Or, one can say, "Well, yes, admittedly, Marx's definition of



tion, without being palpable. (Significantly enough, Marx does use the term "substance" to describe labor. For example, in Part III of *Theories of Surplus Value*, he writes: "Commodities as values constitute one *substance*, they are mere representations of the same substance—social labour." P. 40, emphasis in original.) Either way, congealed labor is not really material. As a result, if the means of production are defined simply as congealed labor, they are not material. And if they are defined as material, they cannot simply be congealed labor.

Yet, when we look at the means of production as defined by Marx (that is, as machines, tools and raw materials), we can clearly see that they are indeed material. And since this is so, they clearly consist of more than just labor. As should be obvious, these commodities consist of various *products of Nature*. They are made up of naturally-produced things that human beings have gathered, grown, or worked on to suit their needs, either those of production or those of consumption. And, of course, Marx clearly recognizes this; indeed, it is central to his entire analysis. But how does he square this with his claim that capital is simply congealed labor?

Of course, one can take refuge in hairsplitting Marx's terminology. One can argue, for example, that the means of production are material, but, by themselves, they are not capital. Since Marx defines capital as the capital-labor *relation*, the means of production are only capital, and hence congealed

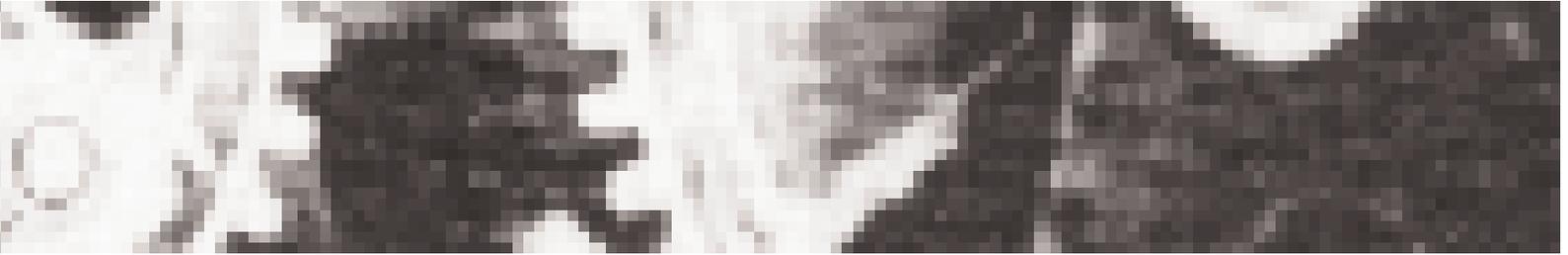
capital as congealed labor is metaphorical. What he is trying to illustrate through the use of it is that commodities, including the means of production, are products of human labor." But what gets obscured by this metaphor, this attempt at illustration, is that commodities, including the means of production, are not just products of labor. They are products of labor and something else. They are products of labor *and the Earth*, including, of course, the forces of Nature. Marx's metaphor conveniently obscures—or distorts or downplays—the role of the Earth and the forces of nature in economic production. Here, as on so many questions, Marx likes to have it both ways. On the one hand, Marx admits, as he must, that the Earth and the forces of Nature play a crucial role in production. Yet, on the other, he contends that capital is simply the product of labor.

In Marx's theory, this contradiction is "solved" via the labor theory of value. What appears to be a contradiction in terms of ordinary logic is no longer so when the problem is posed in terms of value, as defined by Marx's theory.

We will remember that Marx contends that human labor is the source of all (exchange-, or objective, as opposed to subjective) value. As a result, the value of any given commodity is determined only by the amount of labor (average labor working under average conditions) necessary to produce that commodity. According to the theory, the raw materials that are used in the production of a given com-

modity do not themselves add any value to it except the amount of labor that was expended in preparing them for such use, which value they pass on to the commodity as they (the raw materials) are consumed in the production process. Similarly, the machines and tools that are used to produce the commodity do not themselves create any value, but only pass on to the commodity (through wear and tear, that is, as they are worn out), a portion of their value, which itself is only determined by the amount of

(That they are might have been a reasonable assumption in Marx's time, when capitalist industrialization was in its infancy and human population was much smaller than it is now, but it is positively ridiculous today.) Nature's resources, even the water and the air, once seemingly inexhaustible, are not unlimited. But if this is so, then by implication, Nature does not offer its services to humanity free of charge, as Marx so generously put it, and our natural resources, these products of Nature, do have value. (If



(socially necessary) labor that was expended on their production. In other words, according to Marx, while the products of the Earth contribute to the production of use-values, they do not contribute any (exchange-) value to the commodities that are produced through their consumption, apart from the labor that is expended on them. They have, in sum, no value themselves. This flows from Marx's very definition of value.

To anyone living in today's world who is not steeped in the trappings of Marx's theory, this conclusion must seem absurd. Yet, it is central to Marx's analysis and repeated over and over again throughout his texts. Insofar as Marx gives a reason for this (aside from the fact that it flows from the labor theory of value, which, as we will discuss below, is assumed but never proven), it goes like this: Since the products of Nature are inexhaustible, Nature gives them to humanity "gratuitously" or "free of charge," that is, at no cost to either humanity or to itself. (See, for example, pp. 181-183 of *Theories of Surplus Value*, Part III, Progress Publishers, Moscow, 1971.) In other words, since these products of the Earth are infinite, they have no (exchange-) value. The only (exchange-) value they have (to recapitulate) is due entirely to the human labor that is expended on them to gather or otherwise prepare them for production.

But as the last half of the twentieth century has made abundantly clear, our natural resources are not infinite.

we did not pay for them in the past, we are certainly paying for them now and will continue to do so, perhaps very dearly, in the future.)

If we accept this, then we can see that in this regard Marx's theory is either wrong or in great need of modification. Among the changes required would be the admission that: (1) the products of Nature do have value beyond what human labor may add to them; (2) this value goes into commodities in the course of their production and therefore adds to the values of those commodities; (3) human labor is not the sole source of value, as the labor theory of value insists; (4) the means of production (even in value terms) do not consist simply of (congealed) labor; and (5) capital cannot simply be defined as dead labor that dominates living labor. Thus, even when we pose this question within the basic framework of Marx's analysis, we can see that his theory has serious problems. In fact, the very foundations of his analysis, the theory of value and the definition of capital, are called into question.

THE MEANS OF PRODUCTION: PURELY MATERIAL?

Yet, this is not the only problem with Marx's conception of the means of production. While we disagree with him over whether the means of production can be accurately conceived simply as dead labor and whether the Earth produces

value, surely we can agree that the means of production are accurately described by the term “material.” After all, factories, machines, tools and raw materials, and other things Marx includes under the term do appear to be simply material. But a closer look will reveal that this is not the case.

Take an assembly line in a factory. In many manufacturing processes, the rearrangement of the same machines and workers can lead to an increase in productivity. Although the new setup may entail the very same material entities, it is different and cannot be reduced to those elements. Such an arrangement, it seems to me, is an aspect of the means of production, yet it is not itself material. What is it? It’s a concept or idea.

The same can be said about other components of the means of production, for example, a particular chemical process. Such a process may, when it is in operation, consist of material entities, but the process itself is not reducible to these entities and cannot be fully explained in terms of them.

The inadequacy of the term “material” to describe the means of production can be seen even more clearly if we consider what are called “methods of management,” and administrative, managerial skills in general. A somewhat digressive illustration might be instructive here. In Marx’s day and up until relatively recently, virtually all capitalist factories were run in a rigidly top-down, hierarchical manner: managers gave orders, the orders were passed down through layers of functionaries to foremen and the foremen told the workers what to do. These orders were enforced through an overwhelmingly negative discipline: warnings, fines, suspensions, firings, etc. Yet, beginning after World War II in Japan, some corporate executives developed a different approach to the management of their factories. Instead of the traditional hierarchical structure, they instituted a somewhat more collegial approach. This included organizing employees in work groups that had a degree of autonomy and were motivated by a variety of positive incentives. It also entailed the organization of production to encourage feedback: workers’ suggestions for improving efficiency and product quality were encouraged, communicated to management and, if deemed useful, implemented. In Japan, these methods, however limited they are compared to true workers’ management, led to significant gains in productivity and, along with other fac-

tors, played a major role in the emergence of Japan as an economic powerhouse in the post-World War II period. (Ironically, these methods were originally developed by an American but were ignored in the United States until the Japanese demonstrated their effectiveness.)

In my opinion, such methods of management ought to be recognized as facets of the means of production and hence of capital. But can they really be described as material? They entail material entities (people, machines, tools, etc.), but they cannot simply be reduced to these things. They, too, can better be understood as ideas or concepts.

The non-material nature of at least some of the means of production has become apparent in recent years through the development and proliferation of computers. While we can easily conceive of a computer and its various hookups as material, what about a computer program? Such a program is, it seems to me, an integral part of the means of production, but can it really be described as material? In theory, one might be able to describe such a program in material terms. We could, for example, think of it in terms of the oscillation of the ions in the neurons in the brain of the person who developed the program as he/she did so. Or, we could conceive of it in terms of the specific states and movements of the electrons in the computer in which the program is being run. But (a) is this possible? and (b) does it really grasp the nature of the program? Such a program, it seems to me, is much more accurately described and conceived in terms of the mathematical language in which it is written and the mathematical logic that this language represents. In other words, rather than struggling to come up with a materialist conception of a computer program, it makes more sense to think of it as an intellectual element of the means of production. And what applies to a computer program applies to information in general.

The same limitations of a narrowly materialistic view can be seen even in the traditionally-understood “material elements” of the means of production. Take the hammer. Any given hammer is material, but the fundamental aspect of the hammer as a tool is the concept of the hammer and how it is used. It is this that enables people to make hammers—and different kinds of them—and to use them in their work. If anything, the concept of the hammer is more important than any specific, material hammer. If we had

the concept of the hammer but no hammers, we could make some. If there were hammers, but no concept of them, we wouldn't really have hammers at all, because no one would know what to do with them.

Marxists would probably argue that the idea of a tool, e.g., a hammer, is a reflection of material tools. But this only appears to solve the problem. To take a different example, if



people whose society had not devised the wheel were, by chance, to find one on the ground, they would not automatically know what to do with it; the material wheel does not spontaneously generate the idea of it. Moreover, even the concept of the wheel does not automatically lead to the creation of wheels in the sense that we understand and utilize them. The Aztecs, for example, possessed the idea of the wheel but they only put wheels on their children's toys and did not use them for transportation or other kinds of work.

What are we to make of all this? For one thing, it seems to me that Marx was wrong to describe the means of production simply as "material." There is, at the least, an intellectual aspect of every specific implement of production (and the means of production as a whole), that is essential and which cannot simply be reduced to or described in material terms. In fact, as I suggested above, one could argue that it is the intellectual components (the ideas that have gone into them and which they embody), that are the crucial, fundamental elements of the means of production, while the material aspect is secondary; in other words, that the intellectual elements generate and make possible the material, not the reverse. (We will take up the question of materialism and related philosophical issues in a later article.)

The limitations of Marx's conception become clearer if instead of using the term "means of production" we recognize that what we are really dealing with here is technology and, even more broadly, technique and knowledge itself. Would anybody today, the age of virtual reality, the Internet and biotechnology, seriously describe technology as exclusively or predominantly material? What about the scientific theories, laws and concepts, the methods of investigation, the mathematics, etc., that form the foundation of our technology? (And what about human language? In a recent column [September 2000] in *Scientific American*, scientists Philip and Phyllis Morrison discuss language as technology, perhaps the most important technological development in human evolution.) Are these things—in my opinion, clearly components of the means of production—exclusively or even primarily material? I don't think so.

It seems to me obvious that, like technology as a whole, the means of production cannot accurately be described simply as material. But if the means of production are not exclusively or even primarily material, what happens to the rest of Marx's claim that they are all just products of labor and can be defined simply as dead labor? Certainly, every specific implement of production, that is, a factory, machine, tool, or raw material (insofar as it is not simply found on the ground; even then, it has to be picked up), is a product of labor. But if we accept that it also involves ideas or concepts, then we must recognize that it is not just a product of labor. And if this is so, then the means of

production as a whole, and hence capital, cannot be accurately analyzed merely as an embodiment or congelation of labor. Capital, in other words, is not merely “dead labor” that dominates and oppresses “living labor.”

Putting this together with our previous discussion, we can see that Marx’s conception of capital is seriously flawed. Capital, the means of production used to exploit living labor, is neither purely material nor purely “dead labor,” but must also include, in some combination and proportion, both the products of the Earth and the intellectual components which can be said (to use Marx’s term, but with even more justification), to be embodied in those implements and make them possible.

It is worth noting that nowhere in *Capital*, or in any of Marx’s other writings on economic questions, or in any of his writings that I know of, is there a systematic discussion of science and technology and their precise relation to the process of economic production. Mostly, there are only brief and very general references, in which the crucial issues are fudged. One of the more elaborate discussions can be found in the *Grundrisse* (Pelican Books, Baltimore, 1973), in the form of comments appearing sporadically between page 694 and page 715. A typical passage occurs on p. 694:

The accumulation of knowledge and of skill, of the general productive forces of the social brain, is thus absorbed into capital, as opposed to labour, and hence appears as an attribute of capital, and more specifically as *fixed capital*, in so far as it enters into the production process as a means of production proper. (Emphasis in original.)

Here we can see the same desire to have it both ways that we saw in Marx’s treatment of the role of the products of the Earth and the forces of Nature in the production process. On the one hand, Marx concedes that the means of production do include such things as knowledge and skill, which are obviously not material nor simply products of labor. Yet he never even tries to square this with his insistence that the means of production are purely material and that they, and hence capital, are solely products of labor and consist of nothing but congealed labor. Somehow, these “productive forces of the social brain” (whatever that is), are “absorbed” into capital without actually becoming part of it.

The same argument, and the same fudging, is found in *Theories of Surplus Value*:

In this process, in which the *social* character of their labour confronts them to a certain degree as *capitalised* (as for example in machinery the visible products of labour appear as dominating labour), the same naturally takes place with the forces of nature and science, the product of general historical development in its abstract quintessence—they confront the labourers as *powers* of capital. They are separate in fact from the skill and knowledge of the individual labourer—and although, in their origin, they too are the product of labour—wherever they enter into the labour-process they appear as *embodied in capital*. But science realised *in the machine* appears as *capital* in relation to the labourers. And in fact all these applications of science, natural forces and products of labour on a large scale, these applications founded on *social labour*, themselves appear only as *means for the exploitation* of labour, as means of appropriating surplus-labour, and hence confront labour as *powers* belonging to capital. (*Theories of Surplus Value*, Part I, pp. 391-2. Emphasis in original.)

Here the contradiction occurs in the same paragraph. On the one hand, science is “realised in the machine.” On the other hand, the powers of nature and of science only “appear” to be embodied in capital. Somehow, the forces of Nature and the achievements of science are realised in the means of production but not really embodied in capital, which, we will remember, Marx defines as the means of production which, in the hands of the capitalists, are used to produce surplus value. (The same fuzziness appears in Marx’s claim that science and the forces of Nature are historically the product of labor; this is simply asserted without further elaboration.) This dance of definitions only serves to obscure the fact that an honest look at the nature of the means of production undermines the three claims that are essential to Marx’s definition of capital: that the means of production are purely material, that capital is simply the product of labour and that it is merely congealed labour. Marx’s approach is really just a sleight-of-hand: he simply amalgamates the products and forces of Nature and the achievements of science with capital while leaving his definition of capital unchanged. The result is that, conveniently, everything is reduced to labor.

Consistent with this approach, Marx never discusses in any detail how the process of technological development occurs, what institutions and social strata are responsible for it and, probably most important, how technological innovations are adapted to the production process. While a detailed analysis of all this might lie beyond the bounds of what Marx called political economy and its critique, surely a theory of capitalism, especially one that emphasizes the role of the modernization of the production process, needs to describe it more specifically and situate it more precisely within the contours of the system than Marx does. Instead, Marx seems to take technological development and its industrial application for granted. It's almost as if, in his theory, the means of production generate their new, more productive forms automatically; that capital, congealed labor, somehow evolves of its own accord. Seen from this angle, labor once again appears to be some sort of cosmic substance that engenders its new forms and propels its own evolution.

PRODUCTIVITY OF LABOR OR PRODUCTIVITY OF CAPITAL?

The problems with Marx's conception of the means of production and capital have serious implications for other aspects of his theory, particularly his view that labor is the only truly productive power in economic production. In *Capital* and throughout his writings, Marx is at great pains to show that what is commonly understood as the productivity of capital is an illusion. To him, capital itself is not productive; what appears as the productivity of capital is really the productivity of labor in an illusory, or distorted, form. Marx writes:

Since living labour—through the exchange between capital and labourer—is incorporated in capital, and appears as an activity belonging to capital from the moment that the labour-process begins, all the productive powers of social labour appear as the productive power of capital, just as the general social form of labour appears in money as the property of a thing. Thus, the productive power of social labour and its special forms now appear as productive powers and forms of capital, of *materialised* labour, of the material conditions of labour which, having assumed an independent form, are personified by the capitalist in relation to living labour. Here we have once more the

perversion of the relationship, which we have already, in dealing with money, called *fetishism*. (Karl Marx, *Theories of Surplus Value*, Part I, p. 389. Emphasis in original.)

Despite this, the productive nature of capital is in fact admitted by Marx, although only in a backhanded way. As we saw, according to Marx the application of new techniques of production to the production process enables the workers to produce a greater amount of commodities in a given period of time. In other words, it makes labor more productive. Moreover, this increase in productivity enables the capitalists to increase the exploitation of the workers, to increase both the amount and the rate of surplus value, which, in turn, enables the capitalists to accumulate more capital. Both functions—increasing the quantity of goods produced in a given period of time and raising the rate of capital accumulation—are, it seems to me, productive. Yet, because Marx insists that capital is nothing but stored-up labor, these productive functions are ascribed entirely to labor.

In this, Marx is being consistent with his theoretical assumptions. But if we recognize that his conception of capital is wrong, or at least incomplete, then we cannot accept Marx's ascription of the productivity of capital to labor. On the contrary, we have to recognize that capital is productive in its own right and that its productivity is not simply an illusion or a form of fetishism, as Marx would have it.

EXPLOITATION: SCIENTIFICALLY DEMONSTRATED?

But if capital is actually productive, and not just apparently so, then Marx's claim to have scientifically demonstrated that the workers are exploited in capitalist production is also called into question. In Marx's theory, we recall, under capitalism the working class produces, with the help of the means of production which they, or their forerunners, have produced, both the necessary and the surplus product. But after paying the workers enough to maintain themselves and their families (that is, the necessary product), the capitalists keep the entirety of the surplus value (the surplus product), even though they did nothing to produce it. By this conception, the workers are clearly and obviously exploited. They have produced everything—both necessary and surplus product as well as (in previous production cycles) the entirety of the means of produc-

tion—but despite this, they only receive a part of the total product, in fact, just enough to keep themselves and their families alive.

But if capital is productive, then this apparent demonstration of the workers' exploitation cannot be maintained. At the very least, the issue becomes blurred, and hence arguable. On the most general level, it seems reasonable to believe that the workers, the Earth and Nature generally, and the implements of production (including their intellectual components), all combine to make capitalist production, including the production of a surplus, possible. But who can determine, and how can it possibly be determined, precisely who is responsible for what? Marx insists that labor is responsible for the entirety of production and deserves the fruits; consequently, the capitalists, who reap all the surplus, are nothing more than parasites. But if capital is not simply the product of labor, that is, is not just dead labor, then all the elements that participate in and are responsible for production—the workers, the social layers responsible for developing technology, the Earth, capital, and even the capitalists, who manage production—all deserve a portion of the surplus product. In fact, it could even be argued that the ability of society to produce an economic surplus is entirely the result, not of the productive power of labor, but of the productive power of technology and therefore, under capitalism, of capital. And if this were so, the workers would not be exploited at all, but would merely be receiving their fair share of what is produced. This, of course, is what the capitalists and their apologists argue, and the proof they offer is that this is what the market, the only objective standard for judging value in their view, determines.

It seems to me that, in reality, no one knows what the relative shares that labor, the Earth and capital contribute to production under capitalism, and I doubt that any precise, scientifically demonstrable answer can ever be found. But if this is true, then Marx's claim to have scientifically demonstrated that the workers are exploited under capitalism falls to the ground.

Yet, one need not deny that the Earth and capital/the means of production are productive in order to argue (I do not say prove) that the capitalists are exploitive. The fact that land and capital are productive does not necessarily mean that the owners of these productive resources deserve the revenue that these elements generate. If, for example, their ownership of these resources is illegitimate,

then their collection of these revenues is also illegitimate. What the capitalists and landlords have in their defense of their claims to profit and rent is the fact that they own the capital and land, and that the law and the state attest to the legitimacy of their ownership. But mere possession does not prove that they deserve them. So, one way to argue that these classes are exploitive is to show that they came to own these productive agents through illegitimate or immoral means. And this Marx himself did. Indeed, one of his most valuable contributions is his historical demonstration, in *Capital* and elsewhere, of how, through the process of "primitive accumulation," the conditions necessary for capitalist production were created. Through the most brutal of means (executions, chopping off of limbs, floggings, etc.), the peasants were forced from the land and the artisans dispossessed of their tools and machines and compelled to work for the capitalists, that is, to become proletarians. If the possession of the land and the means of production by landowners and capitalists is illegitimate, by virtue of how they acquired them, then their appropriation of the entire economic surplus produced through the use of them is also illegitimate. But this is a moral argument, not a scientific one, ultimately because it involves subjective and hence arguable judgments about the morality and legitimacy of historical processes.

One can make a broader case for the exploitive nature of the capitalist and landlord classes, and of the capitalist system as a whole, in a similar way. Capitalist production, and economic production in all forms of society, is a social process. It would be impossible without the active participation of billions of people. Thus, given the fact that labor and all who participate in economic activity help to produce an economic surplus, and given the fact that the division of society into social classes has made possible the development of technology and the tremendous increase in the production of wealth this has afforded, all of us deserve, that is, ought to receive, both a fair share of that wealth, including a portion of the surplus produced in the production process, and as well as real participation in the control over the technology and the economy as a whole. Instead, the tremendous economic and social power that the human species has produced and that is embodied in our technology has been expropriated and controlled by tiny elite. And this ruling class has used and continues to use this control to appropriate virtually the entirety of the social surplus and to force the vast majority of people to work and otherwise act to further its narrow goals, not the least of which is the maintenance of its rule and the continual augmentation of its wealth and power.

Those familiar with Marxism know that Marx himself made this very argument, but apparently not satisfied with its moralistic nature, he attempted to give it a scientific foundation. In so doing, he wound up with a theory that significantly distorts reality and a claim that cannot be defended.

V. THE LABOR THEORY OF VALUE

Although our discussion so far has called into question the validity of Marx's conception of value, it is worth looking at that theory in greater detail.

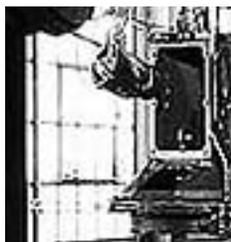
As I've mentioned, Marx never proves the labor theory of value. Instead, he assumes it. Insofar as he attempts to establish its validity, he does so in two ways. One of these is to demonstrate the theory's explanatory value. In other words, he develops an internally consistent model of capitalism through the logical elaboration of his initial assumption (that labor is the source of all value), then uses this model to explain the workings of capitalism and predict the course of its development. But this does not constitute proof, since Marx does not strictly test the model against the actual dynamics of the system and its evolution. Marx occasionally cites economic statistics to demonstrate specific aspects of his theory, but even here, his discussion almost always remains within the parameters of his model. As a result, what appears to be such a demonstration is in fact a large number of hypothetical examples that merely illustrate and elaborate the internal logic of his theory.

Marx's other approach to establishing the validity of the labor theory of value is to claim that it was a prior achievement of what he called scientific political economy, in other words, the theory was developed in a scientific way by his predecessors in the field. As Marx tells us, he took the labor theory of value from bourgeois political economy when it was still revolutionary and therefore scientific, and used it as the foundation of his own analysis. In effect, he relies on the authority of his bourgeois antecedents to establish the theory's validity. But this, too, is no proof, since his predecessors did not prove their theory either. To them and to Marx, it seemed to be virtually a statement of fact and therefore the logical starting point for economic analysis.

To more fully grasp the problems with Marx's theory of value, it is worth remembering his overall method. As I discussed in the first installment of this article, Marx's analysis of capitalism is elaborated in stages. First, he asks us to imagine a society consisting entirely of small, independent producers of commodities (such as artisans and small farmers) who own their own tools and other implements of production, and in which, it is essential to add, such tools and implements play a relatively minor role in the production process. He calls this society "simple commodity production." In such a society, Marx says, the value of any given commodity is determined by the amount of time it takes an average commodity producer working under average conditions, to produce that commodity. Marx then uses this model, particularly the conceptions of value and money associated with it, to demonstrate the key components of his analysis of capitalism: the characteristics of commodities and the dynamics of their production and exchange, the fact that capitalism is exploitive and how this exploitation occurs, the nature and dynamics of capital, etc. He does so despite the fact that capitalism differs from simple commodity production in a number of significant ways, including that it entails the significant and ever-increasing use of the means of production in the production process. In other words, as he develops his analysis, Marx assumes, without further explanation, that the points he established in his discussion of simple commodity production, especially the nature and determination of value, apply without significant modification.

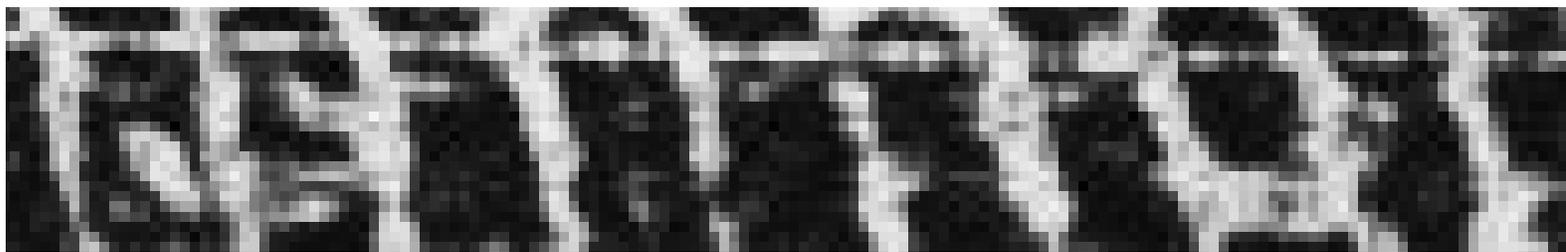
(It is not until Volume 3 of *Capital* that Marx discusses how the law of value is modified in the operation of industrial capitalism. And even here, the basic concept of value remains unchanged. The apparent contradiction between the notion of value elaborated in Volume 1 of *Capital* and its modification in Volume III [which I will discuss below] is the focus of what is perhaps the best-known of the critiques of Marx's analysis, that of the Austrian economist, Eugen Böhm-Bawerk, *Karl Marx and the Close of His System*.)

Despite its apparent plausibility, Marx's procedure is flawed. It is acceptable only if one assumes, as Marx does, that the means of production are nothing but materialized labor. In this case, the values of such capitalistically-produced commodities can still be legitimately said to be determined by the amount of socially necessary labor they embody. But if the means of production are not simply materialized labor, if, instead, as I have argued, they con-



ning, and to use it, with only slight modifications, to analyze industrial capitalism. And he did so without really discussing, let alone proving, whether it was an accurate representation of how the system functioned. (Even Adam Smith admitted, according to Marx, that “the determination of value by labour-time was no longer applicable to ‘civilised’ times.” *Theories of Surplus Value*, Part II, Progress Publishers, Moscow, 1968). But Marx borrowed a lot more than the law of value from his predecessors. He adopted much of their overall approach and purpose.

The figures among the pioneers of “scientific political economy” whom Marx admired most, Adam Smith and



tain other components that cannot be reduced to labor, then the values of the commodities produced are not determined solely by the amount of socially necessary labor that is embodied in them. They are determined by that and those other components.

In fact, if we recognize that even relatively simple implements of production, such as the machines and tools artisans use, are not purely products of labor, we can see that under simple commodity production the values of commodities are not solely determined by the amount of socially necessary labor that is embodied in them. In other words, even under simple commodity production, the basic formulation of the law of value holds only as a rough approximation. While the degree of “roughness” may be minimal under conditions in which the amount of tools and machinery involved in production is small, it is certainly not when analyzing a system such as capitalism, which is characterized, according to Marx’s own theory, by the preponderant and ever-growing use of the means of production.

What Marx did was to take an economic theory that was developed to analyze capitalism in a preindustrial age, that is, before the Industrial Revolution or as it was just begin-

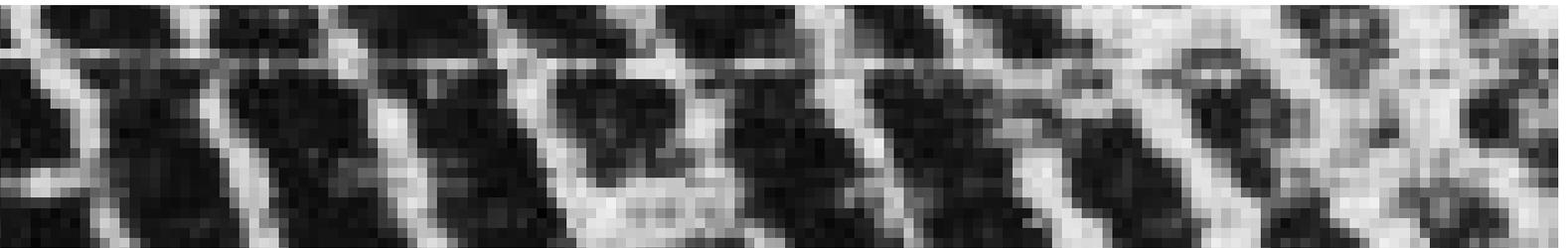
David Ricardo, were supporters of capitalist economic methods and the free market, and opponents of those classes and institutions that stood in the way of the development of capitalism. And the labor theory of value served their ideological aims very well. Among other things, they thought that the landlords, the historical descendants of the feudal nobility who did no useful labor but merely collected rent and consumed the products produced by others, were economic and social parasites, a drain on the British economy and a negative influence on British society. As a result, these economic theorists were anxious to expose the landlords’ parasitic role and to limit their economic, social and political influence.

Their judgment of the landlords’ unproductive social role flowed from and was reflected in their theory, the cornerstone of which was their theory of value. Stated in ordinary terms, this asserts that economic value is generated by those who work. In other words, only labor produces value. The critique of the landlords follows inexorably: those who do not engage in productive labor do not produce value, they only consume it. In short, the landlords and their retainers are parasites.

However, their analyses had a major drawback that Marx was able to discern. They didn't adequately reveal the role of the capitalists and the origin of their profits. Insofar as Smith and Ricardo sought to explain this, they tended to subsume the capitalists under the laboring classes. After all, compared to the landlords, who merely collected rents and consumed products produced by others, the capitalists were active in the production process. They launched enterprises, built workshops and factories, furnished them with machinery, tools and raw materials, hired workers, supervised the production process and marketed the products. Thus, to Smith and Ricardo, the capitalists, in con-

making socialism possible). In sum, Marx developed the labor theory of value in a more consistent way than had Smith and Ricardo and drew the logical conclusion. The conclusion follows directly from the (unproven) assumption: If only labor produces value, then the capitalists, who receive profits far above any presumed wages of superintendence, are exploiters; they appropriate value that they do not produce.

But what Marx in fact did was to take a theory that was at best only a rough approximation to the reality it was intended to analyze and used it to analyze a new reality from which it diverged even more. The theory certainly

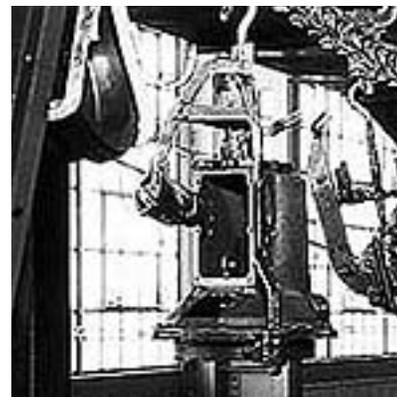


trast to the landlords, participated in, and were at least partly responsible for, the production of value.

But when Smith and Ricardo actually tried to account for the source of profit, their theory got fuzzy. Insofar as they could explain it, they came up with two somewhat overlapping explanations: (1) the capitalists receive "wages of superintendence" for directing the process of production; and (2) they accumulate the resources to invest in production, that is, their capital, by limiting their own consumption.

To Marx, these explanations evaded the issue. In his view, the capitalists' profits far exceeded any wages of superintendence they were owed even if they didn't consume anything at all. Instead, Marx realized that the same argument Smith and Ricardo directed at the landlords applied to the capitalists as well. He therefore took their theory of value, removed its inconsistencies and elaborated it to develop his own analysis of capitalism. As they had demonstrated the unproductive role of the landlords, Marx showed that the capitalists, too, lived off the labor of others (although he did grant them the credit for their role in developing the system, increasing the productive forces and therefore

demonstrates what Marx wanted it to, but only, in effect, by assuming his conclusion from the beginning and ultimately misreading the system he was trying to explain.



One of the main weaknesses of the theory is, as we've discussed, the one-sided and ultimately false conception of the means of production that it implies. The problem, however, is not just theoretical. It also leads to a distorted understanding of how the means of production are evaluated under capitalism.

We remember that, for Marx, the value of any given commodity, including those constituting the means of production, is equal to, or determined by, the amount of average social labor required to produce it. But how does one account for the fact that different machines, even machines designed for the same purpose, are not equally productive? As an example, we can imagine two machines designed to perform the same task, say, to make nails, but one of which produces more nails in the same period of time using the same amount of human labor. It is not impossible that both machines require the same or very similar amounts of labor time to produce, in which case, according to Marx, they have the same value. But do they? If two machines cost the same but one is more productive than the other, isn't the more productive one more valuable, doesn't it have a greater value? It seems to me the answer must be "yes," both from the point of view of the capitalists and from some other, more objective, standpoint. This, it seems to me, is something Marx's theory, and the labor theory of value more generally, cannot easily account for. A Marxist might argue that the invention of the more productive machine would make the less productive machine obsolete, would therefore devalue it and would relatively quickly replace it in the production process. But this just evades the issue rather than addressing it. Clearly, the capitalists, both those who produce them and those who purchase them, and therefore the market as a whole, ought to, and do, evaluate specific means of production according to their qualitative characteristics and not just according to their costs of production conceived in terms of the labor theory of value, that is, according to how much labor time is required to produce them.

This question is really a specific example of a broader problem with the labor theory of value: how to account for the specific qualities of commodities, their use-values. To review, according to this theory each commodity has both a use-value, determined by the concrete qualities of the commodity, and an exchange-value. But, in Marx's theory, the use value of a given commodity can't be quan-

tified. (There are hints of a quantitative theory of use-value in the *Grundrisse*, which neither Marx nor Engels actually published, but they are dropped in Marx's mature theory.) In fact, for Marx, use-value has a kind of "on or off" character; either a commodity has a use-value or it doesn't. To be more precise, for a product to be a commodity it must have no use-value for its possessor (which is why he/she wants to sell it), while having a use-value for a potential buyer (which is why he/she wants to buy it). If a commodity has no use-value for anybody, it has no exchange-value either. In his desire to find some common characteristic that enabled distinct commodities to be exchanged, Marx seems to have assumed that the concrete qualities of commodities, aside from the general question of whether someone wanted to buy them, could be safely ignored.

We have already seen how this is a problem when it comes to evaluating specific implements of production. In the real capitalist economy, their precise qualities, not least of which are their respective productivities, cannot simply be ignored. These qualities need to be, and in fact are, factored into the capitalists' calculations; the capitalists must evaluate them in some way if they are to stay in business. But the limitations of the labor theory of value also creates a problem when it comes to evaluating consumer goods: not all such goods are the same, and discerning consumers will soon learn to evaluate such goods and consider their purchases accordingly.

Perhaps Marx believed that consumers' evaluations of the specific qualities of consumer goods were purely subjective and thus had no place in the "objective" science he thought political science ought to be. But this is wrong. If the decisions of only a very few consumers were affected by their evaluations of the specific qualities of the commodities they were considering buying, the result might not be general or profound enough to warrant consideration in a field that deals with large quantities of products, average costs, etc. Yet, once any significant numbers of consumers start to take the qualitative characteristics of commodities into consideration when deciding on their purchases, or when, on the other hand, commodity producers start to take pains to differentiate or improve their commodities in order to attract buyers, what may once have been legitimately conceived as being purely subjective starts to take on a broader social, that is, objective, significance. This is all the more the case when producers start to consider which new products ought to be developed for production and sale.

In Marx's theory, the question of consumer preferences would be accounted for by contending that where demand for a particular commodity were high, the prices of these commodities would rise above their actual value, which would attract more capital to the production of those commodities. This would eventually result in more of those commodities being placed on the market and, via the laws of supply and demand, a fall in the price of those commodities toward their actual values. But this assumes that the new producers of the commodities in question can produce commodities of the same precise qualities, and overall level of quality, which may not be the case. If they can't, the leveling of market prices toward their values will not take place. In other words, the fact that consumers may prefer one commodity over another because of their qualities is an objective economic fact, and not something that can be dismissed or ignored as a mere "subjective" consideration.

Like much else in his theory, Marx's tendency to ignore the issue of differences in qualitative value may have made some sense when capitalism was in its early stages of development. At that time, the overwhelming majority of the buyers of consumer goods, the members of the working class, were paid at a very low level and their purchases probably consisted almost entirely of a few very basic goods, such as food and clothes, the quality of which might have varied very little. But once a significant group of consumers emerged whose living standards allowed them to purchase a greater quantity and diversity of goods, in other words, consumers who had significant "discretionary income," the assumptions and implications of the labor theory of value lead to significant distortions of economic reality. In any case, as we saw above, the theory does not account for the qualitative differences among machines and the means of production generally, which would have been of economic significance even at the stage of capitalist development when Marx was writing.

Mainstream (bourgeois) economics attempted to deal with this question by abandoning the labor theory of value altogether and deciding instead to define the values of commodities in terms of the interaction (the vector sum, as it were), of the subjective evaluations of the prospective sellers and buyers of commodities (the theory of "marginal utility"). Underneath the theoretical apparatus, the theory essentially argues that the prices that commodities sell for represent their values. It may have been true, as Marxists

have contended, that this abandonment of the labor theory of value was the result of the fact that, as capitalist apologists, these theorists did not like the conclusions that flowed from it. But there were also good reasons to jettison the theory: First, under the labor theory of value, the actual values of commodities produced under capitalism are not directly discernible, let alone measurable. For Marx, value underlies and ultimately determines prices, but goods only sell at their values by way of exception. As a result, the theory does not lend itself to practical use and development. Secondly, however useful the labor theory of value may have once been as a rough approximation, it does not, as I've tried to show, accurately describe the nature of capital, the origin of profit and the overall dynamics of the capitalist system. Whether bourgeois economics actually does so is another question.

One can well understand why Marx would be attracted to the labor theory of value. For one thing, it was an established theory that had already demonstrated its analytical usefulness. For another, Marx was a convinced materialist and, at least superficially, the labor theory of value seems to be consistent with that school of philosophy. Thirdly, the theory proved what he already believed, that the workers were exploited. Lastly, the labor theory of value lent itself to the demonstration that capitalism would evolve to a state from which its overthrow and replacement by a socialist/communist society would be highly likely. It is to this question that we now turn.

THE TENDENCIES OF CAPITALIST DEVELOPMENT

In *Capital* and elsewhere, Marx discusses various tendencies of capitalist development, that is, certain economic and social trends that result from the very functioning of capitalism. These trends, when taken together, would roughly describe the future evolution of the system. (In the interests of space, I propose, with two exceptions, to describe these tendencies relatively briefly.) The most important of these tendencies are:

1. The concentration and centralization of capital. Marx believed that in the course of capitalist development, the number of capitals constituting a particular national capitalist economy would decrease while the average size of the remaining capitals would increase. This occurs as larger and, Marx believed, more efficient capitals take over and absorb the capital of businesses that fail, usually as a result



of the economic crises that Marx felt were endemic to the system. Since Marx believed that increasing size brought greater economic efficiency, he also thought that the average size of factories and other units of production characteristic of the economy would grow as well. The result of these tendencies would be that any given national capitalist economy would be made up of a fewer number of ever-larger capitals consisting of increasingly massive enterprises.

2. A decrease in the size of the capitalist class itself, as ruined capitalists are thrown into the ranks of the working class by recurring crises.

3. A comparable destruction of the middle sectors of society, particularly small businesspersons, who would also be relegated to the position of propertyless proletarians. This would include the elimination of peasants and other small family farmers and their replacement by large capitalist farms.

4. A tendency for the working class to grow in size, as capitalist production expands and the displaced social sectors mentioned above join the ranks of the working class. Along with the increasing organic composition of capital, this tendency also results in an ever-larger “reserve army of the unemployed.” This consists of unemployed members of the working class whose existence maintains a downward

pressure on the wages of the employed workers. This ensures that, over time, the workers are paid at value, in other words, that there is no substantial and long-term rise in wages.

5. A tendency for free competition, in which many relatively small capitals compete with each other via the market, to give way to limited, monopolistic, or, more accurately, oligopolistic competition, a condition in which a few large capitals control the market and the economy as a whole. Accompanying this would be the replacement of the free market by a limited type of economic planning, as a result of oligopolistic firms’ ability to coordinate (generally, to limit), production and set prices. Since Marx believed that production within individual enterprises was planned, in contrast to the anarchy of the market, the growth in the size of the remaining enterprises also promoted the planned nature of production.

6. A tendency for the capitalist state to take over increasing portions of the total social capital, to manage industry and the rest of the economy itself, and to relegate the remaining members of the capitalist class to the status of idle “coupon clippers,” that is, the recipients of dividends.

7. A tendency for the rate of profit to decline, the eventual result being that the capitalist system would tend toward a state of increasing stagnation and ever-greater crises. Since this part of Marx’s analysis is both essential to his theory and not easy to grasp, it is worth explaining it in some detail.

In Volume 3 of *Capital*, Marx showed how even among capitals of different organic compositions, that is, where the ratios of the amount of machinery, tools and raw materials (constant capital), to that of labor (variable capital), vary, the capitalists’ search for ever-larger profits leads to the formation of an average rate of profit. As Marx analyzed it, in those sectors of the economy where the organic composition of capital is low, that is, where the use of means of production is small relative to the amount of labor employed, as in the textile industry, the rate of profit of that sector taken in isolation would be relatively high. (Since, according to Marx, the rate of profit is expressed in the fraction $s/c+v$, where s equals surplus value, c equals constant capital, and v equals variable, where c is small, the value of the fraction will be larger than where c is larger.) As a result, additional capitalists will invest in those sectors. In other words, capital will flow into those industries, resulting in increased production of the commodities produced in those sectors. Eventually, the consequent increase

in competition will drive the prices of the commodities of those sectors below their actual values. Conversely, capital will flow out of those sectors where the organic composition is high (such as the steel industry), and the rate of profit relatively low. This results in fewer of the commodities characteristic of those sectors being produced. The decline in competition in these industries will tend to raise the prices of the commodities produced in these sectors above their values. In effect, surplus value produced in sectors with low organic compositions of capital (where the prices of commodities are below their values) will flow, via the market, out of these industries and into those sectors with high organic compositions (where the prices of commodities are above their values). This process will occur until the rates of profit of the various sectors are equalized. As a result of this dynamic, the prices of commodities will tend to fluctuate around what Marx called their “prices of production” rather than their values. These prices consist of the values of the constant capital and labor that go into the commodities, plus additional value (part of the total surplus value) that reflects the average rate of profit. Through this mechanism, the total surplus value pumped out of the working class is distributed among the capitalists not according to where it is produced but in proportion to the amount of capital invested. In other words, on average, the capitalists earn profits proportionate to the amount of capital they respectively invest.

Marx also contended that, once established, this overall rate of profit would tend to decline over time. The basic reason for this is that since capitalist production entails the use of ever greater amounts of constant capital (machines, tools and raw materials), which does not produce surplus value, compared to labor, which does, the result of capitalist development would be a tendency of the denominator of the fraction that expresses the rate of profit ($s/c+v$), to increase faster than the numerator, leading to a decline in the value of the fraction. In other words, the very logic of capitalist development, particularly the use of increasing amounts of constant capital, causes a gradual decline in the rate of profit. And since, from the capitalists’ point of view, the whole purpose of production is to increase their capital by accumulating surplus value, such a decline would eventually lead to economic stagnation and point to the ultimate overthrow of the system.

Marx believed, however, that this falling rate of profit is a tendency, not an ironclad law, and that the capitalists’ usual

methods of increasing the rate of surplus value, that is, lengthening the workday, speeding up production and carrying out the drastic modernization of the means of production, would tend to offset the tendency. Marx also argued that the declining rate of profit could be offset through other tendencies. These include: the fact that technological progress tends to cheapen the elements, that is, lower the value, of constant capital, while simultaneously reducing the value of labor-power; that an increased rate of turnover of capital enables the capitalists to produce more surplus value with the same amounts of capital, and that, in general, capitalist production entails an increase in the total quantity of surplus value produced. Despite these trends, Marx assumed that the tendency of the rate of profit to fall would ultimately prevail. (In fact, the decline in the rate of profit was accepted as an established fact by virtually all economic theorists of the time: they were concerned with how to explain it.)

8. One of the results of the trends I’ve discussed would be a tendency toward increasing economic crises. Despite the fact that Marx, in contrast to procapitalist economic theorists, believed that such crises were an intrinsic characteristic of the system, there is no unified and detailed discussion of economic crises in the published body of Marx’s writings. Instead, there are various elements that point toward an elaborated theory. Thus, Marx often stressed that since capitalist production, as a system of commodity production, occurs through the use of money, and since the ultimate purpose of production is the accumulation of value rather than the exchange of commodities, there was the possibility of a break between purchases and sales. This raised, at least theoretically, the possibility of an economic crisis, that is, a break in circulation and a resulting stoppage of production. For example, an individual might sell his commodities for money, but then decide to hoard the money rather than purchase other commodities. If this behavior were generalized, the result would be a severe decline in overall demand and what Marx called a crisis of overproduction, that is, too many goods on the market and too few buyers.

Marx also emphasized that since capitalist production occurs through circulation, that is, the exchange of goods on the market, the correct proportions of the commodities produced necessary to maintain production smoothly are only determined after the fact, in an unplanned, haphazard fashion. That is, since the capitalists do not know for sure precisely how many commodities they will be able to sell, they can only make rough estimations. Inevitably, some

capitalists will produce too many, others too few. Marx called this the “anarchy of production.” Where disproportionalities between the production of different sectors of the economy—for example, between those producing consumer goods versus those producing means of production, or within either of these departments—build up over time, a problem that is exacerbated by the functioning of the credit mechanism, this, too, would point toward a stoppage in production and a crisis.

Perhaps most frequently, Marx argued that the ultimate cause of crises under capitalism was the limited nature of the purchasing power of the working class, which constituted the vast majority of consumers. This limited purchasing power results from the fact that each capitalist, in his/her drive to produce ever-greater amounts of surplus value, tries to lower the amount of money he/she spends on necessary labor time in order to increase the amount of surplus labor time. In other words, he/she tries to keep the wages he/she pays to his/her workers as low as possible. This puts each capitalist, and the capitalist system as a whole, in a contradictory situation. On the one hand, taken individually each capitalist wants to lower wages as much as possible. On the other hand, each capitalist (and implicitly, the system as a whole), wants to increase the market for his/her own commodities. Since the capitalists produce for the sake of production, that is, to accumulate as much capital as possible, the result is a virtually constant tendency toward overproduction and crisis. (In addition, this drive to keep wages low hinders the development of the productive powers of the workers, the chief force of production.)

Finally, there is the tendency for the rate of profit to decline. This underlies and exacerbates these other “contradictions,” while itself pointing toward crises, since there is a point at which, that is, when the expected rate of return on their investments is low enough, the capitalists will no longer invest in production at all.

In general, Marx argued that the periodic crises that the capitalist economy experiences are of a corrective nature,

through which the conditions necessary to maintain capitalist production are more or less forcibly reestablished: excess commodities are destroyed, smaller inefficient capitals are eliminated or swallowed up by bigger capitals, existing capitals are devalued, workers are thrown out of work, wages are lowered, debts discounted, etc. These crises also provide the opportunity and incentive for the capitalists to modernize their plants and equipment. As a result, the introduction of such equipment tends to occur on a periodic basis, thus accounting for the cyclical motion of the capitalist economy. Overall, Marx felt, and this is certainly the logic of his theory, that these economic crises would tend to get more severe over time, pointing toward capitalism’s ultimate demise.

SOCIALISM: THE LOGIC OF CAPITALIST DEVELOPMENT?

If we take all these tendencies of capitalist development and carry them to their logical conclusions, the result would be an increasing (and increasingly obvious), social polarization of society between a tiny and shrinking elite of idle capitalists, on the one hand, and a growing class of workers (many of them unemployed), owning nothing but their labor-power, on the other. Meanwhile, the capitalist state would own, run, and, to a considerable degree, plan an economy made up of a few very large blocks of capital, themselves consisting of a limited number of enormous industrial enterprises, and facing economic stagnation and periodic crises. In this way, the economic preconditions of what Marx considered to be a socialist society would be created. Meanwhile, the political and social foundations would only require the workers’ consciousness to come into accord with the economic reality, that is, for the workers to decide to carry out a revolution and take over society. This was something Marx believed would follow as a matter of course, since, in his view, consciousness is ultimately a reflection of the material, economic reality.



Yet, as we know, capitalist society has not evolved this way. While many of the tendencies Marx discerned certainly exist, they have been offset by various counter-tendencies so that the extreme economic concentration and social polarization that Marx envisioned has not come to pass. Thus, capital does get concentrated and centralized, and some enterprises get larger, but capitalist development also generates smaller capitals, and smaller enterprises, particularly in newer sectors of the economy. As a result, while many small businesses and capitals get destroyed, many new ones are created and the modern capitalist economy is characterized by generally vibrant sectors of small- and medium-sized businesses. Likewise with state intervention. The modern state certainly intervenes in the economy to a far greater extent than it did in Marx's day. Yet it has by no means taken over anything approaching the majority of capitalist enterprises. Moreover, it has, in the interests of the health of the system as a whole, broken up highly monopolized economic sectors. Last but by no means least, the middle sectors of society, rather than diminishing, have increased to an extraordinary extent. Aside from the many small businesses, a "new middle class" of professionals—scientists, engineers, managers, technicians, specialists and consultants of all kinds, government employees, teachers, artists and writers—along with skilled workers has emerged, grown in size and increased in economic, social and political influence. Despite his recognition that the economic and social tendencies he analyzed were offset by countervailing trends, Marx assumed, once again without proving his case, that the tendencies he focused on were not only predominant but would actually be carried out to their logical termini.

To a considerable degree, Marx's conception of capitalist development, particularly his prediction of a sharp polarization of classes, flows from his view that capital is just congealed labor and his corresponding failure to recognize the nature of technology. As long as capital is perceived as sim-

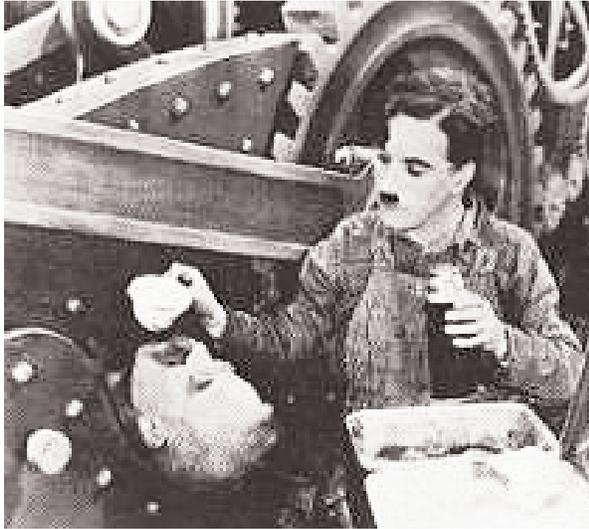
ply dead labor and technology as something automatically generated by it or somehow simply ready to hand, the entire question of how technology is developed and managed, and what sectors of society carry out these tasks, will not even get posed, let alone answered. And it was the failure to address this question led Marx to miss the explosion in the size and internal differentiation of the middle class, what I think may be the key factor, along with the increased intervention of the state in the economy, behind the stability and vitality capitalism has shown over the last fifty years. Along with the growth of the state, technological development has certainly been a major factor behind the growth of these sectors, while they, in turn, have played a major role in developing new technology, managing, operating and servicing it, and training others to operate it.

Beyond this, these social layers have brought about a tremendous expansion of the market, a key factor in mitigating the economic crises to which capitalism is still prone. Equally important, they have greatly contributed to the social and political stability of the system. By and large, these are the people with the highest rates of participation in the political process, not merely as voters, but as candidates for office, managers of and consultants for political campaigns, as well as journalists, analysts and commentators. Not least, these are the sectors that dominate the labor unions and other organizations of the working class that have facilitated that class's integration into the system, a fact that has greatly increased its stability.

DIALECTIC OF LABOR?

Despite Marx's detailed analysis, capitalism has not evolved as he foresaw and has turned out to be far more vibrant than he expected. While he certainly cannot be blamed for this, it is important for us to recognize Marx's failure in this regard and to try to account for it. In my opinion, along with the chief flaws in his conception of capital, Marx's error flows from his belief that capitalism,





and human history as a whole, reflects, and is ultimately governed by, the dialectical development of labor. In philosophical terms, capitalist development, from its origins to its projected demise, becomes the phenomenology of labor.

As I discussed in the first installment of this article, Marx took Hegel's dialectical schema and placed it on what he thought was a materialist basis. Hegel's dialectic of consciousness became Marx's dialectic of labor. For Hegel, the essence of humanity is our consciousness (and self-consciousness), which we (at first, unknowingly) share with God. In this view, our history is, at bottom, the dialectical process through which, in a kind of discussion with itself, our consciousness journeys to the recognition of the latter fact, that is, to our spiritual unification with God (a unification, I should add to be precise, which maintains the distinctions of the two poles—us and God—within itself). For Marx, the essence of humanity is labor, and our history is the process through which we transform ourselves (and Nature) through work. Specifically, it is a process through which labor evolves dialectically towards its own unification with itself.

In the first installment of this article, we saw how this was

described in terms of the dialectic of abstract and concrete labor. In light of our discussion of Marx's conception of capital, we can see this dialectic in another form, the dialectic between living labor and dead labor, labor and its products. (In Marx, as in Hegel, all these dialectical processes occur side by side, and with varying degrees of temporality. Thus, in addition to the dialectics we have already referred to, the capitalist system as a whole exists as an ongoing dialectical unity of production and circulation. This is reflected in the very structure of *Capital*: Volume I analyses capitalist production; Volume II, capitalist circulation, Volume III, capitalist production as a whole, that is, the ongoing dialectical unity of the previous two.) As an integral part of the work process, labor generates, "objectifies itself in," tools and other implements of labor. Prior to capitalism, living labor and this objectified, dead labor were united. Under primitive communism, each society possessed its own implements of labor and the land on which it hunted, gathered or farmed, collectively. Even under early forms of class society, this unity between dead and living labor remained, although in an attenuated form. Under slavery, for example, slaves were considered to be tools; in effect, they were united with the implements with which they worked. Under feudalism, the serfs possessed their own implements of labor and were attached to the land. However, this unity of labor and implements, living and dead labor, limited the development of both, that is, the tools/implements, on the one hand, and the skills of the laborers, on the other.

Through the historical processes that led to the dissolution of feudalism in Western Europe, the laborers became separated from the means of production. As a result, under capitalism living labor is now embodied in the proletariat, the working class that owns no machines or tools of production, while dead labor exists in the form of the capitalistically produced means of production. Living labor and dead labor are now separated from each other. One consequence of this is that dead labor confronts the workers as an alien power that dominates and oppresses them: the more productive the workers' labor is, the more oppressed they are. In the language of the *Grundrisse*, labor as subject and labor as object are alienated from each other and relate to each other as hostile forces. While this separation increases the oppression of the workers, it also makes possible, indeed, it stimulates, the development of new means of production and a tremendous increase in the forces of production. Thus, as it evolves, capitalism increases both the mass and power of the means of production, as well as

generating an ever-larger working class. In other words, as capitalism develops, the two antipodes, dead labor and living labor, labor as object and labor as subject, become ever larger, while the conflict or contradiction between them becomes ever more intense.

Once again, we have the Hegelian dialectic but in an apparently material form: two aspects of an increasingly intensifying internal contradiction. Labor, originally unified, is split, becomes alienated from itself. Over time, the contradiction between its two aspects, living and dead, subject and object, intensifies. Sooner or later, according to the dialectical schema, the contradiction will be resolved in a higher synthesis, the unification of living labor and dead labor, the liberation of the working class, the subordination of the means of production to their conscious control, and the establishment of the conditions for the rapid expansion of the forces of production, particularly, the skills and talents of the workers themselves. Steeped in Hegelian philosophy, Marx believed he had discovered, through his study of capitalism and economic theory, that this dialectical schema was not rooted in the Idealistic realm of ideas or consciousness, as Hegel did, but in the world of what he saw as material production. And *Capital* was his effort to trace the inner workings of this supposedly materialist dialectic, in the form of the hidden “laws of motion” of capitalism and to reveal this discovery, and the liberatory destiny that it implied, to the proletariat and, I might add, to the rest of the world. Thus, Marxism is really a variant of Hegelianism, (to be more precise, Hegelianism in Ricardian clothes, a kind of Hegelio-Ricardianism or Ricardio-Hegelianism), and *Capital* is the equivalent of Hegel’s *Phenomenology of Mind*, in which labor has replaced human consciousness as the evolving substance.)

Marx’s conception requires, as an essential presupposition, that capitalism and history as a whole be conceived as the evolution of one underlying substance, whose development occurs in a dialectical manner. And this requires the notion that the means of production are nothing but (objectified) labor. If they aren’t, then Marx’s dialectical schema isn’t an accurate representation of the actual process of capitalist development. Marx’s scenario also requires a belief in the validity of Hegel’s dialectic logic, in other words, that it is a real process subsisting in reality rather than an esthetically pleasing and convenient mental construct, so that there is an actual historical compulsion for the internal contradiction, the conflict between capital and labor, to be resolved. But if the dialectical logic does

not inhere in, that is, does not govern reality, there is no basis to argue that this resolution will necessarily occur. In sum, if the Hegelio-Marxist philosophical notions cannot be sustained, Marx’s insistence that he had demonstrated that the class struggle necessarily results in the establishment of the dictatorship of the proletariat, that is, that the necessary outcome of capitalist development is socialism/communism, is false.

Like many theoreticians (particularly philosophers), Marx’s mistake was to believe, despite his materialism, that his theory is more true, more real, than concrete reality, in fact, that his theory, the laws of motion of capitalism, actually governs reality. In simpler, if somewhat cruder, terms, Marx was a victim of his own wishful thinking.

MARX’S THEORY AS A WHOLE

At this point, we can come to some overall conclusions about Marx’s theory of capitalism. What are we to make of it?

To answer this question it is crucial to recognize that there are a number of different ways his theory can be taken. We can, for example, see it as a philosophical conception. To me, this means taking it as a tentative point of departure, a personal and unprovable interpretation of reality, and seeing what insights it offers us. To me, Marx deserves credit for developing a model of capitalism and capitalist development that is critical of the system, in contrast to the apologetic character of most economic theory. Instead of viewing all economic participants as essentially equal owners of commodities/resources (land, labor and capital), who meet on the market and gain just rewards (rent, wages and profit/interest), for their services, Marx analyzed capitalism as a hierarchy of power in which one segment profits at the expense of the other. Specifically, he recognized that the working class, the majority of the population and a major “factor” or force of production, was exploited and did not receive a fair share of what it contributed to the production of material wealth. In addition, instead of seeing capitalism as a system that functioned smoothly, in which economic crises were an aberration, Marx saw capitalism as an antagonistic system, one at war with itself, to which conflict and crises are endemic. Moreover, he attempted to come up with a model of how the capitalist system functioned in its entirety. (One of the striking characteristics of Marx’s economic writings is their obsessive-compulsive character. He seems to have thought he

could encompass every aspect of capitalism in a unified theory. He also worked out the internal logic of his theory in intricate detail, while commenting, often at great length, on the ideas of virtually all the economic theorists he consulted.) While the goal of a total theory eluded him (I think it is intrinsically unattainable), the breadth of his analysis, its internal consistency, and the sheer amount of work they reveal, are impressive. He also discerned some of the key tendencies of the system, and his effort to develop a strategy for human liberation on this basis represents a crucial milestone for all utopian projects that came after him. Probably most important, Marx tried to show that the working class is not just a passive object caught in the automatic workings of an economic machine, but is an active force whose struggles play a central role in the system and point toward its eventual overthrow. This was an attempt to provide a scientific basis for his insistence that “the emancipation of the working class must be the act of the working class itself.”

But when we view Marx’s theory in the light of the insights it offers, we should keep a number of things in mind. First, many of these contributions were not originally Marx’s. While Marx broadly admitted his debts to certain predecessors—what he referred to as French socialism, English political economy and German Idealist philosophy—many aspects of his theory were not derived by him, but by others, and then taken over and developed more systematically by him. Thus, a great deal of Marx’s economic theory, and not just some of his language (and underlying philosophy), can be found in the writings of Hegel, particularly his *Philosophy of Right*. In addition, while Marx is usually credited with the development of the theory of exploitation under capitalism, this was in fact achieved by a prior economic theorist. Given the tremendous political, social and ideological influence it has enjoyed, Marxism has had a tendency to take credit for, or to be seen as being responsible for, intellectual contributions made by others. We would do well to remember, and refer back to the writings of, these other theorists. This requires us to break from the tendency, most pronounced among Marxists, but common to the left overall, to argue from authority, that is, to contend that since Marx (or somebody else) said something, it must be true. Finally, rather than believing in or trying to construct a unitary, apparently self-consistent body of doctrine and denouncing all who disagree with it, we should be consciously, even militantly, eclectic, seeking to borrow from a broad range of sources, including those not traditionally considered to be leftist or revolutionary.

But this way of viewing Marx’s theory is distinct from the way Marx presented it and the way it has been taken by most of his followers. This is as a scientific program, the unity of theory and practice, capable of predicting the course of development of capitalism and on which one can confidently base a strategy for social change. If we look at Marx’s theory against this claim, we can see that it does not hold up. Not only has it not been tested, it cannot, as I argued, even be tested. In contrast, truly scientific theories, as part of their very definition, require themselves to be subject to strict and broadly agreed-upon tests or standards of proof.

Beyond this, Marx’s theory does not hold up on its own terms. For one thing, as we have seen, the labor theory of value cannot be sustained; at best, it can be seen as a rough approximation, but one not capable of supporting a theory that claims to be able to make accurate predictions about capitalism’s (and humanity’s) future state. For another, Marx’s theory misreads the nature of capital. Capital cannot be accurately understood simply as accumulated dead labor that dominates living labor. Instead, we can better conceive of it, to rephrase Marx’s theory, as accumulated social/economic resources, including labor, products of the Earth and intellectual/technological contributions, that, in the hands of a tiny elite, enable that elite to direct the production process, and through this, to produce and appropriate the bulk of the surplus product. More broadly, the control of these resources enables the elite to dominate and control humanity as a whole (and to try to dominate the Earth), and to increase its wealth and power.

In the same way, Marx’s theory misinterprets the nature of exploitation under capitalism. It is not that the capitalist class appropriates the social surplus which the working class alone is responsible for producing. Rather, the capitalists appropriate the social surplus that the economy as a whole, including capital and the forces/products of Nature, produces. In a society dominated by commodity production and exchange, ownership and/or control of these resources confers social power on their owner/possessors. This is not only the power to produce and appropriate wealth, the social surplus, but also the power to control the activities—social, political and intellectual as well as economic—of others. This ownership/control is maintained and reinforced by the state, which, by becoming integrated with the economic hierarchy, creates a specifically capitalist form of economic/political domination. Seen this way, the root of our exploitation and our oppression as a whole is the unequal distribution of power.

Moreover, Marx's theory presents a limited and one-sided picture of capitalism as a whole. If we look at capitalism today, does it make sense to see it as merely a system that accumulates dead labor to dominate living labor? This can only be maintained if scientific/technological achievements and activity are conceived simply as labor. While scientific activity is work, it cannot be subsumed under the same category as simple, unskilled labor that, for Marx, constitutes the vast majority of labor performed under capitalism. Nor does it help to see it, as Marx does skilled labor, as a compound of unskilled labor. The more skilled labor becomes, in other words, the more intellectual preparation and activity are required to generate a given level of knowledge and skill, the less can it be conceived as some kind of simple substance, its products as an embodiment of that substance, and the value of those products as being determined by the amount of labor-time it took to produce them.

What, for example, is the economic value of Einstein's Theory of Relativity? Is it determined by the amount of labor-time required to produce it? What about Newton's laws of motion? To be more prosaic, what are the values of the scientific/mathematical discoveries, accumulated over the centuries, that have gone into the development of computers or any other embodiment of our current technology: are they too determined by the amount of labor necessary to produce them? The very posing of these questions suggests the absurdity of any attempt to conceive of scientific/technological contributions solely as products of labor whose value is determined by the amount of time socially necessary to produce them. But if this is so, then capitalism, whose very existence requires and generates these tremendous scientific/technological achievements, cannot accurately be conceived simply as a system based on the domination of dead labor over living labor.

Marx's analysis also fails to recognize the predatory relationship human beings, particularly as we have evolved under capitalism, have with the Earth and the natural world as a whole. Not only did Marx not recognize that our use of the products and productive powers of Nature has a cost and is ultimately destructive, one of his main criticisms of capitalism was that it fetters the development of the forces of production, in other words, that it hinders our ability to dominate the Earth. In other words, Marx takes humanity's current antagonistic relationship to the natural world, and the underlying nature and purpose of our science and technology, as given, rather than advocat-

ing the need to change it. For him, one of the chief benefits of socialism/communism is that it will increase humanity's ability to dominate the Earth and the natural world as a whole, not live in harmony with it.

HUMANITY: DEFINED BY LABOR?

Finally, Marx's theory also presents, it seems to me, a distorted or one-sided conception of the human species. Marx sees humanity's defining characteristic as labor, our ability, and our drive, to transform nature and ourselves through work. However insightful this conception may be, it amalgamates and confuses discrete activities under the category of labor. At the risk of simplifying, these are: (1) working with existing tools, machines and other technological devices; (2) making these tools, machines, etc.; and (3) inventing new ones. If we look at the early stages of human development, it is easy to conceive these three functions simply as aspects of labor. But they are conceptually distinct, and at some point in our evolution, they become obviously so and themselves subject to the social division of labor: some people work with existing tools, machines, etc., some people make them; and still other people devote themselves to inventing them. While working with and making tools and machines certainly require thought, the invention of new tools and machines, as well as developing the intellectual realms that go into this, requires and generates a tremendous expansion of humanity's intellectual capacities. As a result, it seems to me, it can longer be thought of simply as labor, let alone seeing it as a compound of unskilled labor, without making the term "labor" so broad as to be virtually meaningless.

What this means for Marx's theory of capitalism can be seen if we integrate this idea into Marx's overall conception of social development. According to this theory, we will remember, the growth of labor productivity makes possible the production of a social surplus, which in turn is the material basis for the development of social classes and of exploitation. With the emergence of class society, the social division of labor takes on a class dimension. The production and expropriation of a social surplus not only enables a ruling class and state to develop, it also frees a group of people from manual labor and allows them to devote themselves to intellectual activities, including the development of writing, mathematics and astronomy and other realms of abstract thought. While the activities of

these individuals serve to maintain class society, these people are not purely parasitical. They help develop the means of production, for example, the elaborate systems of irrigation that were the basis of early civilizations in the Nile and Tigris-Euphrates valleys. In sum, with the development of class society, a significant portion of humanity's intellectual activity becomes distinct from the process of labor and develops its own internal division of labor. However, as Marx discussed, this separation ultimately distorted and limited the growth of both humanity's intellectual abilities and the productive power of labor. In part because of the low status

only did the capitalists organize production, they were the chief social factor behind the application of scientific developments to the production process itself. And in so doing, they fostered the development of technology, to the mutual benefit of both production and science. Moreover, despite the much discussed transformation of the individual capitalist entrepreneurs into corporate managers, the capitalists still carry out, to varying degrees, this social function, a fact that is particularly clear in the new, high-tech sectors of the economy. Unfortunately, for the social roles they play—as the organizers of production and as the vectors for the develop-



attributed to labor itself, carried out as it was by slaves or serfs, the application of science and mathematics to the actual work process was limited and haphazard. As a result, the development of technology, as well as of science and mathematics, was relatively slow.

But with the dissolution of feudalism, the stage was set for a more direct connection between science and math, on the one hand, and economic activity, on the other, to occur. And the social vehicle for this connection, acting as a sort of bridge, was the growing class of capitalist entrepreneurs. Not

ment and application of new technology—the capitalists exact a very high price: the right to expropriate virtually the entirety of the surplus product produced through the production process, and the resulting power to control the labor and lives of others, indeed, society as a whole.

In part through their role, humanity's intellectual activity becomes the predominant factor in economic life. One of the reasons capitalism has been so successful is precisely because it provides conditions conducive both to the development of these scientific and technological advances



and to their application to the manufacturing process: varying degrees of intellectual freedom, on the one hand, and the opportunity and incentive to launch new enterprises, introduce new methods and create new products, on the other.

In light of this, we can now see much more clearly the limitations of Marx's view that the means of production are nothing but congealed labor. They are much more the combined intellectual achievements of humanity applied to economic production.

Rather than conceiving humanity primarily in terms of labor, as Marx does, one can with equal or greater justification think of humanity as beings who generate and live in a world of increasingly elaborate and complex symbols, including language, religion, philosophy, mathematics, science, art, music, etc., in short, the world of culture. (For a detailed discussion of this idea, see the writings of Ernst Cassirer, particularly his *The Philosophy of Symbolic Forms*.) While Marx contended that it is the labor process that generates the production of symbols, one can just as well argue that it is the other way around, that without the symbols and the social life that they make possible, labor wouldn't exist. In other words, if human beings didn't live in groups, our economic activity, and anything we could call labor, wouldn't occur, while our social activity itself would be impossible if we did not communicate with one another and create a world of shared meanings, that is, if we did not generate symbols.

But if history is not ultimately determined by the evolution of labor, a supposedly material process with a supposedly discernible direction, as Marx thought, but instead reflects humanity's symbolic life, the world of culture, then it is much harder to discern, or to claim to discern, a specific direction of our social development. For one of the things most striking about our symbolic/cultural life is its spontaneous, creative character, which, by definition, does not lend itself to prediction. In other words, if our social evolution reflects the development of our cultural life, then the outcome of this evolution is not in itself predictable, and any attempt to claim that it is, for example, that socialism/communism is the necessary outcome of human history, is false and a delusion.

THE LOGIC OF MARXISM

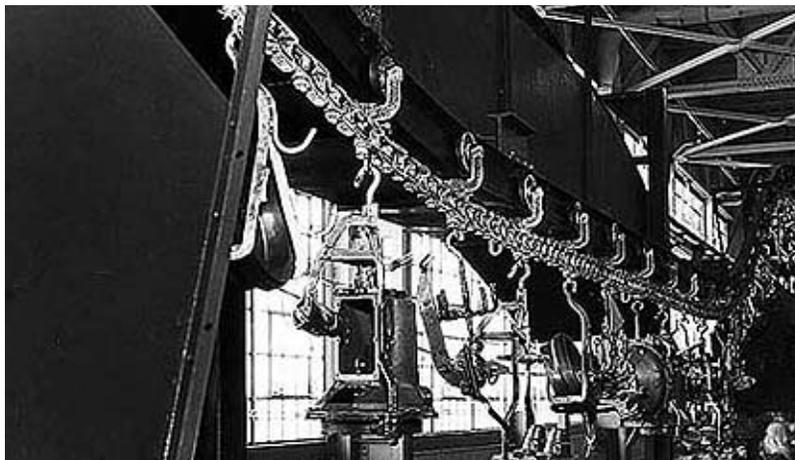
In light of all this, we can see why the practical results of the Marxist program have not been free societies, but totalitarian systems. As I've discussed, when Marxists have seized power, they've used the state, reorganized to be even larger and more powerful, to build new societies in conformity with their program. While Marx wrote very little that describes his conception of socialism, he did make it clear that all or most of the property, the means of production, would be nationalized, that is, owned and run by the state, itself supposedly run by the workers. As a result, the nationalization of much of the economy becomes one of the primary goals of Marxist governments. Beyond this, Marx's analysis of capitalist development provides additional guidelines for Marxists intent on revolutionizing society. I am referring specifically to the various trends or tendencies discussed above. Since Marxists have come to power in less capitalistically developed societies, and since Marx saw advanced capitalist society as building the prerequisites for socialism, Marxists in power have sought to carry out the trends of capitalist development, as envisioned by Marx, as close to their logical conclusions as is feasible: to concentrate and centralize all capital in one block and to place that block in the hands of the state (and, of course, to get rid of the capitalists); to eliminate small businesses, independent entrepreneurs and pre-capitalist social classes, such as peasants, and to concentrate economic activity in large, supposedly more efficient units, and to direct this activity through what is in fact a kind of monopolistic planning. By the logic of Marxism, Marxists, supposedly opponents of capitalism, become active proponents of (a specific type) of

capitalism. The result, as we know, has not been democratic, cooperative and egalitarian societies, but forms of highly centralized, statified capitalism without the capitalist class, in other words, state capitalism.

Not surprisingly, many of the other characteristics of these systems reflect Marx's theory. Given Marx's belief that the Earth offers its productive services gratuitously, is there any wonder that the so-called socialist countries, including, above all the Soviet Union and the People's Republic of China, experienced some of the worse environmental destruction in the world, devastation made far worse by the fact that the totalitarian structures of these societies prevented the emergence of independent environmental movements? Given Marx's failure to fully recognize that the means of production are not just material, not just congealed labor, but that they also embody intellectual activity, is it any surprise that the socialist economies were ineffective in developing new technology, inefficient in their use of capital and incapable of accurately evaluating capital equipment? And given Marx's refusal to recognize the social significance of individuals' subjective evaluation of commodities, isn't it perfectly logical that the state capitalist economies were/are incapable of producing high quality consumer goods in the variety and amounts that people desired, or that the much touted centralized planning led to tremendous shortages and waste, in other words, that state planning was really a pretentious label for barely-managed chaos. Finally, given Marx's failure to recognize the true role of humanity's intellectual/cultural activities in human society and its creative and ultimately unpredictable nature, doesn't it make sense that Marxist regimes have systematically sought to suppress independent intellectual and artistic activity? All these characteristics of the state capitalist societies were/are not purely accidental results of the circumstances under which the "socialist" transformations occurred, the legacies of historical and economic conditions, or the results of the errors or personalities of the revolutions' leaders. They flow from, and reflect, Marx's theory and the Marxian program as a whole.

THE IRONIES OF MARXISM

There is considerable irony in the fact that Karl Marx, one of the paramount intellectual figures of the 19th



century, should have failed to recognize the true significance of intellectual activity to human history. But this is not the only irony of this kind. Marx and Marxism are a study in ironies. Marx was an intellectual who downplayed the role of intellectual activity in capitalism and history as a whole. He was a philosopher who denied he was doing philosophy. He considered himself a materialist, but his philosophy is actually Idealist. He saw himself as a critic of ideologies, but he developed one of the most influential ideologies yet created. He was what we would now recognize a middle-class person who predicted the demise of this class. He was from a Jewish family (his father converted, his grandfather had been a rabbi), who wrote what many consider to be an anti-Semitic tract. He was a militant opponent of religion whose worldview is a restatement of the ancient messianic vision of Judaism. He claimed to be an opponent of the state, but advocated a dictatorship (supposedly a democratic one) to achieve his goal. He was a man who analyzed and condemned what he called false consciousness (a social form of self-delusion), but was the very embodiment of such false consciousness. He analyzed the fetishism of commodities, the reification of our social relations (seeing them as relations among things), but was himself a victim of such reification, viewing the abstractions of his own theory (labor, value, the "laws of motion" of capitalism), as objectively existing substances and structures that govern our lives. He was a passionate advocate of the liberation of humanity whose program became a blueprint for one of the most brutal forms of society humanity has ever seen.

But if we look at Marx as a product of his times, these ironies make sense. He was a highly trained intellectual who refused to accept the marginal, essentially apologetic role to which intellectuals of his day were assigned. (At the

top of the intellectual hierarchy, Hegel became in effect the court philosopher of the Prussian monarchy. Had he accepted his assigned role in society, Marx would have wound up as a low-level functionary in the state bureaucracy, as his father had been.) Outraged at the barbarities of society, particularly those of the still emerging capitalist society, and seeing little future either for himself or for the intellectual class of which he was part, Marx looked for and thought he had found the vehicle for his own and humanity's liberation in the working class being created by the burgeoning industrial economy. And he sought to become the proletariat's theoretician and spokesperson. In this way, Marx projected his own dreams onto the world stage. To use Nietzsche's phrase, Marx's work and Marxism as a whole is a reflection, an embodiment, if you will, of Marx's "will to power."

Unfortunately, this will to power was to find a social base. Belying Marx's predictions, the middle class, rather than disappearing, has greatly increased in size and social influence, both in the state and as the leading layer of the working class movement, which Marxism itself was instrumental in creating. At the same time, the modernization of the state and the development of the techniques of political, social and economic domination and control, facets of the means of production that Marx overlooked, made it possible for intellectuals and other middle class sectors to take over and run the state. Through these ultimate ironies, Marxism, the product of an alienated middle-class intellectual, developed the social leverage that enabled it to play a powerful role in history. Although Marxism claims to be the program of the working class and at times has attracted large number of workers to its banner, it remains the outlook and dream of a middle-class intellectual. As a result, throughout its history, Marxism has been most attractive to morally outraged, socially alienated intellectuals. (Among other things, this helps explain why Marxism became so attractive to middle-class nationalists who quickly discarded Marx's focus on the working class and its revolutionary self-emancipation in favor of an orientation to the peasantry or to any other class that might serve as a base for their own conquest of power. It also explains why so many intellectuals and would-be intellectuals, morally concerned and seemingly intelligent in other respects, have been so easily seduced into becoming blind apologists of barbaric totalitarian regimes.) Rather than being the program for the liberation of humanity, Marxism is, and has shown itself to be, an embodiment of these intellectuals' will to power.

Yet it is not merely ironic that Marxism, with its failure to recognize the intellectual nature of capital and the emergence of the middle class, became a vehicle for the will to

power of sections of that class. These very blind spots help make Marxists' seizure of power possible. It's because Marxist intellectuals do not see that they are part of a distinct social layer and do not recognize that their intellectual, technical and managerial skills represent the basis for their own domination and exploitation of the working class that they believe they truly represent the interests, indeed, the very consciousness, of the working class. It is this delusion, this false consciousness, that provides the moral impetus and justification for their struggle for power. It's what gives the Marxists' drive to create a totalitarian state the fervor of a moral crusade. Marxists truly believe they are liberating humanity. And it is this delusion, it seems to me, that makes Marxism so dangerous.

THE END OF UTOPIA?

But if Marxism is at bottom a middle-class program, so are all the other utopian schemes developed by intellectuals. Does this mean we must give up our utopian dreams? I don't think so. As part of our intellectual and emotional life humanity needs and generates such ideals. And all those who seek to improve social conditions, even those who are not advocates of revolution, need them as guidelines or standards against which we judge present-day society and toward which to aim. But what we must do is to avoid presenting our visions as what they are not. They are neither science nor scientific; they are not inevitable nor even highly probable. They do not represent the standpoint, the supposedly true consciousness, of the working class. They represent our consciousness and our desires; we can only believe that they represent the interests of the working class and all humanity. Such visions are, I hope, possible to achieve, but any claim that they are "necessary" is ultimately a moral one, a fact that must be admitted and argued for as such. Above all, we must forever abjure the use of the state, and the means of coercion it controls, as the vehicle to achieve our goals. Our aim should be to lead by example. If we don't, if we succumb to the temptation to impose our dreams, we will, if we succeed at all, become oppressors rather than the liberators we claim and wish to be.

By way of a postscript, it is worth noting what the Danish philosopher Soren Kierkegaard once wrote of Hegel:

If he had written his whole *Logic* and in the preface had disclosed the fact that it was merely a thought-experiment (in which, however, at many points he had shirked something), he would have been the

greatest thinker that has ever lived. Now he is comic.
(Quoted in Walter Lowrie, *A Short Life of Kierkegaard*,
Princeton University Press, Princeton, New Jersey,
1970, p. 116.)

If we replace *Logic* with *Capital*, I think this quip equally applies to Marx, although in light of the destructive consequences of Marxism—the millions jailed, tortured and killed, the colossal environmental devastation, the sully- ing of the terms “socialism” and “communism”— we should probably change “comic” to “tragic.”

