tion 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

Karl Marx's Theory of Capital

An Anarchist Critique of Marxism

Ron Tabor

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 produc-

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 cap-ital, 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.

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Part II

and when necessary, carry out actions they would not otherwise consider. Only if one believes that Marxism represents the true theory of reality and the true path to the liberation of humanityan end to centuries of oppression, poverty, disease and war-would one be willing to seize control of the state and to use the massive coercive power of that institution to carry out the violent social engineering that the socialist revolution, in its Marxist conception, requires.

Actually, it is probably more accurate to describe this as certainty struggling with doubt, a dialectic that the Danish philosopher Soren Kierkegaard labored so intently to describe. Surrounded by doubters, most Marxists remain well aware of the fact that Marxism may be wrong. But they continue to struggle to prove the truth of their convictions. This dynamic-that of someone trying to convince oneself of the truth of one's belief-is often at the root of religious or ideological zealotry and provides one of its driving forces.

It is this aspect of Marxism that explains (or helps explain) why apparently decent, humane people-people moved by the highest moral sentiments-have been capable of carrying out the most ruthless of measures, involving the killing, imprisonment and torture of tens of millions of people. By the same token, it helps explain the depth of the illusions so many people have had in the so-called *socialist societies*, despite overwhelming evidence of the true nature of these regimes. Seen this way, Marxism, and the theory of capital which is a crucial part of it, is ultimately an ethical or moral doctrine. In the name of the struggle for human liberation, it justifies an effort to remake society through the full force and violence of an omnipotent state.

Of course, Marxists have the right to think any way they want, even to be deluded. But when they use the power of a dictatorial state to try to impose their delusions on everybody else, the result is not, and never can be, human freedom.

Part I

Marxism claims to be the outlook (the true interests and the natural point of view) of the international working class, the laboring class created by capitalism that owns no property except its ability to work, its labor-power. By virtue of this, Marxism believes it is both the true, scientific theory of history and the program for the liberation of humanity. What Karl Marx and his co-thinker, Friedrich Engels, claimed to have done was to discover the underlying logic of history that would necessarily result in the establishment, through a working class revolution, of human freedom, embodied in the classless and stateless society they called communism.

Despite these claims, revolutions led by Marxists have not led to the creation of the communism that Marx and Engels envisioned, nor even to the dictatorship of the proletariat they predicted and advocated as the transition to socialism, which they called the first stage of communist society. Instead, such revolutions have resulted in totalitarian regimes in which bureaucratic elites have ruled over the working class and other social strata in the name of the workers. These systems I believe can best be described as state capitalism.

To be sure, the systems that emerged from Marxist revolutions were/are in many respects the antithesis of Marx and Engels' vision of communist society. But as I see it, these outcomes were not the result of mistakes by Marxists or of unexpected *objective conditions*, as Trotskyists and other Marxists critical of Communist societies contend. They flow from the underlying logic of Marxism itself. Thus, instead of being the perversion or negation of Marxism, these regimes represent its true meaning.

PERSONAL KNOWLEDGE OF MARXISM

I did not always see the question this way. For many years, I was a committed Marxist, a firm believer in its validity and deeply

other factors, Marxism has had an extraordinarily powerful appeal to large numbers of people in the 150 years of its existence.

To these people, who in a sense want to be or are looking to be convinced, Marxism's claims to be scientific are taken as good coin. In particular, Marxism seems at least as scientific as the fields of economics, sociology and political science that are held up in academia as its superiors, and which are so obviously apologetic of capitalism. The sheer volume of Marx's research, the scope and ingenuity of his theory, and the fact that all of its facets seem so logically consistent, all contribute to the belief that Marxism is scientific. In other words, for such people, who are in fact looking for an all-encompassing doctrine, Marxism's appears to be scientific, or at least a reasonable first approximation of a science of society that is in process of development.

Yet, not only is Marxism a seductive doctrine, it is also addictive. Once one becomes committed to it, one's critical faculties become distorted. Marxists don't look at Marxism critically, to see what may be the matter with it, the way they analyze other theories. Rather, they spend considerable energy seeking to validate it, looking for confirmations of it. And they go to considerable lengths to overlook or explain away the numerous contradictions and questionable propositions with which Marxist theory abounds. (Is socialism inevitable or merely highly probable? Is consciousness a simple reflection of material reality or does it have its own autonomy? If socialism is inevitable, why bother to struggle for it? If Marxism is the true standpoint of the proletariat, why isn't the proletariat socialist? And why hasn't the international socialist revolution occurred already?) Once one has adopted it, Marxism is very difficult to give up and, like other types of addiction, usually entails an intense emotional and moral crisis to do so.

Probably most important for my argument here, Marxism has a profound impact on the moral sensibilities of Marxists. The belief that Marxism is The Truth gives many of not most Marxists the psychological conviction, the moral certainty, to support, justify,

Hegel, see *Truth and Reality in Marx and Hegel: A Reassessment*, by Czeslaw Prokopczyk, University of Massachusetts Press, Amherst, 1980.)

THE THEORY OF CAPITAL: A MORAL DOCTRINE

Of course, if all these questions are not susceptible of proof, as I believe, then my argument is no more provable than Marx's. But beliefs often have practical consequences and can be judged accordingly. And the practical consequences of Marxism have been palpable.

Among other things, Marxism has exerted a powerful attraction on certain people, particularly but not exclusively intellectuals, who are deeply disturbed by the past and present brutality of human existence. For such individuals, Marxism is a highly seductive doctrine.

Not the least of Marxism's appeal is its vision of the future: a classless, stateless, totally democratic and just society that will be created by a global uprising of the downtrodden and oppressed. This vision goes back to the very sources of the Judeo-Christian tradition and is deeply rooted in the moral sentiments of Western civilization, which has achieved, for good or for bad, nearly total global hegemony.

Integrally connected to this, Marxism provides an affirmation of one's moral outrage at the injustices of contemporary society. To be told not only that such outrage is justified but that it has history on its side-that sooner or later history will bring about the destruction of evil and the triumph of the good and the just-is intensely moralizing.

Finally, for those Marxists who take its credo of the *unity of the-ory and practice* seriously and join Marxist organizations, Marxism provides a focus and structure to one's life. As a result of these and

steeped in its theoretical assumptions. In addition to confirming my moral outrage at the barbarity of contemporary society, Marxism's analysis of capitalism and its theory of history seemed to me to explain a great many things in a scientific way. They did so far better, in any case, than the alternative theories, which struck me as uninformative, blatantly apologetic of capitalism or just plain stupid.

For much of this period, I was involved with organizations, particularly the Revolutionary Socialist League, that claimed to defend the libertarian vision of Marx and Engels and to oppose Communist-ruled societies as perversions of that ideal. Yet, as a result of attempting to understand how such terrible social systems could have arisen from such a well-intentioned worldview, I came to the conclusion that Marxism itself was a major cause of the establishment of such totalitarian regimes.

I am therefore no longer a Marxist, although Marxism has had a major impact on my thinking, including, hopefully, my ability to analyze it. But unlike many other former Marxists, I have not embraced capitalism. I still consider modern industrial society, despite its economic, social and scientific achievements, to be a brutal social system that condemns millions of people to poverty, disease and premature death and a breeding ground of racism, sexism, ecological destruction, fascism and war. Consequently, I continue to believe in the necessity of a radical social transformation to replace global capitalism with a democratic, egalitarian and cooperative society.

Yet, as a result of my reevaluation of Marxism, I have also come to the conclusion that a truly revolutionary anti-elitist program is only possible within the framework of anarchism, that is, a radical liberatory and egalitarian outlook that stresses decentralization, direct democracy and cooperation, and that explicitly rejects the use of the state as a vehicle to promote its goals.

Although it may seem that Marxism today is an insignificant social factor and likely to remain so, I believe this is temporary.

Sooner or later, struggles against capitalism's injustices will intensify, and Marxism and Marxist organizations, or something very much like them, will be revived. For this reason, I think it is crucial that radicals who remain committed to libertarian and egalitarian ideals understand both the content of Marxism and its social significance.

In the following article and another which will appear in a later issue of this journal, I will attempt to lay out how I now understand Marxism, through an examination of the centerpiece of the Marxian world view, Marx's analysis of capitalism. I want to make it clear here that I do not claim to be proving my case. In my opinion, most of the questions involved cannot be proved or disproved (which is part of my argument against Marxism). What I am trying to do is put forward an interpretation of what Marxism is and why it has led to the results it has. If this analysis helps to explain Marxism and its historical outcomes, it will have served its purpose.

A SUMMARY OF MY ARGUMENT

I will present my overall argument first.

1. Marxism is a philosophical worldview, a speculative interpretation of the world. By this I mean that it embodies a set of beliefs about such *deep* questions as the nature of the universe and human beings' place in it, the meaning and goal of history, the origin of human consciousness and the accuracy of our knowledge, the definition of freedom and how it can be achieved. These issues have been discussed and debated by philosophers and others for thousands of years, but neither by Marx's time nor by ours have these issues been settled-proved or disproved-by science (or anything else). Nor, in my view, can they ever be resolved. They are ultimately matters of judgment and choice for every human being.

lutely true, in the sense of being an absolutely, or nearly absolutely, faithful reproduction of reality.

In contrast, I believe that our knowledge, particularly our knowledge of social life, is relative, at best an approximate conjecture about the true structure of reality. Even what are now considered to be the demonstrated verities of physics-the theories of relativity and quantum mechanics-will someday be shown to be incorrect or, at best, limited, approximately correct subsets of broader theories, much as Isaac Newton's laws of motion are now seen. To me, the cosmos is much too large and too complex to be fully graspable by our finite minds, looking out from our tiny corner of the universe. In other words, reality transcends all attempts to explain it theoretically; it is always more complicated-more gritty and unpredictable-than any theory, no matter how brilliant.

But some people are so impressed with the progress of our knowledge that they think that our theory, conceived as *scientific laws*, actually determines reality. In other words, that the true, underlying structure of reality consists of the *scientific laws* that we have discovered.

To a considerable degree, science itself suffers from this tendency (as the very term *scientific law* suggests). But it is saved from the worst implications of this fallacy by its demand that theories be continually tested against reality and by the fact that it doesn't claim to be a total, logically unified philosophic system. As a result, whatever the philosophical beliefs of particular scientists, science, in practice, accepts that theory is inherently limited-at best, an attempt to comprehend a reality that is more complex.

In contrast, Marxism is founded on this very illusion. Despite its claim to be materialist, it in fact contends that Marxist theory, the *laws of motion* Marx claimed to have discovered, is the underlying, true reality, and that external reality-the reality we perceive is a reflection of, and is determined by, that theory. This is, as I've stressed, the standpoint of philosophical Idealism. (For an excellent discussion of this question as it pertains to both Marx and

Yet, Marx's reasoning is based on an additional assumption that is as questionable as his overall circular procedure. Even if economics (the development of the mode of production) has determined the entire evolution of human society, and even if capitalism does evolve precisely as Marx predicts-in other words, even if Marx's theory is an entirely correct description of human history up till now-how do we know that the logic that has determined history up to this point will continue to determine it in the future? Even more important, how do we know that this logic will lead to the creation of a form of society which has never been seen before, a society that, according to Marx himself, operates according to totally new rules, one that involves, for the first time in history, conscious control of our destinies?

Perhaps the creation of this new society involves not an extension of the internal logic of capitalism (and all forms of class society), but a revolutionary departure from, a radical break with, that logic? Although Marx describes the transition from capitalism to socialism as a *leap from the realm of necessity to the realm of freedom*, in his theory this leap occurs through the same logic that has determined human history up to the present.

This, by itself, is enough to explain the totalitarian outcomes of Marxist-led revolutions. People who believe that the ideal society will be created through the same (coercive) logic that has, according to their theory, determined history up to now, will, if they get the opportunity, create a society that is based on and embodies coercion.

THE ARROGANCE OF THEORY

Yet, behind this assumption lies another that is even more doubtful. This is Marx's belief that his theory, and scientific theories in general, are capable of fully explaining reality. In other words, Marx believed that our knowledge is actually or potentially abso-

2. Despite the fact that his theory is philosophical in the sense described, Marx presents it as scientific, as if it has been verified in the same way that the accepted theories of physics, biology and other realms of scientific inquiry have been. Although it has its own philosophical presuppositions, science is an open process: it is a cooperative endeavor, occurring over time and space, that involves many individuals from different nations and cultures who hold a variety of religious and philosophical beliefs. (This cooperation is one of the reasons it is successful.) It also entails accepted rules of procedure and the continual testing of its data, methods, hypotheses and theories. These serve to create, at any given time, a broad level of acceptance of its dominant theories and to provide the means by which new theories may challenge and possibly replace the old.

In contrast, Marxism is a closed system whose practitioners share the same philosophical credo. It has no standardized rules of procedure, and despite its assertion that it is the *unity of theory and practice*, never allows itself to be tested. (Whatever the historical results of Marxism, those Marxists who remain committed to it exonerate it. Those who judge it a failure cease being Marxists.) Moreover, its discussions usually resemble theological debates which, where Marxists have had the means to do so, have often been decided in blood. Stripped of its pretenses, Marxism's claim to be scientific is little more than an attempt to give it an aura of authority that it would not otherwise possess.

3. Although Marxism is not scientific, it makes a convincing case that it is, at least to enough people over the years to have made it a historically significant force. In addition to presenting a plausible theory of history, its elaborate critique of capitalism and its call to overthrow it make Marxism particularly attractive to middle class intellectuals and others of

- intellectual bent who are already disturbed about the injustices of contemporary society.
- 4. The claim that Marxism is scientific rests to a considerable degree on Marx's analysis of capitalism, particularly as elaborated in his magnum opus, Capital. In addition to presenting an analysis of the dynamics of the capitalist economic system, Marx's work is meant to demonstrate what Marxists call the *materialist basis* for socialism. Specifically, it is intended to show that capitalism contains tendencies that will create the social conditions that will render the socialist revolution, as Marx describes it, inevitable. (Despite Marx and Engels' frequent use of such terms as inevitable and necessary, Marxists have continually discussed whether socialism/communism is inevitable and whether Marx and Engels thought it was. To avoid futile debates on this issue, let me say here that I believe my analysis of Marxism applies both to the belief that socialism is inevitable as well as to the view that it is highly probable.)
- 5. Despite the prodigious labor involved in its production, despite the fact that it contains reasonable explanations of a great many aspects of capitalism and despite its vast scholarly apparatus, Marx's analysis of capital, like the rest of his theory, is a philosophical construct, not a scientific theory. Rather than being an objective confirmation of his broader worldview, it is infused throughout with the philosophic assumptions and precepts of that outlook.
- 6. Despite making many assumptions and employing procedures that further his conclusions, Marx does not prove his case. What he does do, in a manner of speaking, is to find what he's looking for. Steeped in the Idealist philosophy of G. W. F. Hegel, Marx searched for, and thought he found, human freedom as an immanent principle embedded in the

for, and believed he found, the specific realm of human activity that is both the foundation of all the others and the one that most lends itself to scientific treatment. Analyzing this sphere, Marx built a model of capitalism's economic processes and then tried to show that the internal logic of this model drives the system toward a condition that renders its overthrow virtually inevitable.

But Marx's conclusion is foreordained by his initial assumption and motivates his procedure at every stage of the argument. First, he assumes that material production is the basis of capitalist society and all previous social systems and determines their evolution. Flowing from this assumption, he chooses to investigate the economic dynamics of capitalism. And based once again on this assumption, he assumes that the dynamics that he discovers in the realm of capitalist production will not be offset by the non-economic factors he excluded from his analysis. At the end of this process, he comes to the (not very surprising) conclusion that these dynamics will lead to the overthrow of capitalism and the establishment of socialism.

Not surprisingly, this circular method is the same as that followed by Hegel in the presentations of his philosophy, particularly the Phenomenology of Mind. Hegel specifically refuses to state and demonstrate his assumptions and method at the beginning. Instead, he invites us to give up our preconceptions and enter into the spontaneous process of consciousness and see where it takes us. Of course, we wind up exactly where Hegel wants us to, because what Hegel calls the spontaneous process of consciousness is precisely Hegel's own method, which we have now unwittingly accepted. (See The Phenomenology of Mind, by G. W. F. Hegel, Harper and Row, New York, 1967, preface.)

In fact, in his book on Hegel, Martin Heidegger describes this circular method as an essential characteristic of philosophy as a whole. (See Martin Heidegger, Hegel's Phenomenology of Spirit, Indiana University Press, Bloomington, 1994, n. 30.)

describe an abstract capitalist: someone whose existence has been reduced to the desire to make money. One can also define a worker simply as someone who must sell his/her labor-power to survive. With these definitions as a starting point and with enough diligence, one can develop a model and ultimately an entire theory of the capitalist economy, one that excludes non-economic phenomena, that demonstrates that the system develops in a discernible and predictable way.

The above considerations, I would argue, explain why Marx's concern to develop a scientific basis for socialism led him to develop the specific type of *materialist* conception of history and society that he did.

THE RETURN OF CIRCULAR REASONING

Unfortunately, this theory, along with his analysis of capitalism and his entire program, is based on the two propositions that social reality is determined and that material production is the determining factor, neither of which he proved. Instead, he assumed them and built the edifice of his worldview on these assumptions.

As a result, what passes for proof (and what is taken as proof by those seeking to be convinced) is the detailed elaboration of historical events and social structures (particularly capitalism) that are applications or exemplifications of his overall theory that take his unproven assumptions as their starting point. Thus, instead of proving his theory, Marx hopes that its overall plausibility and its ability to provide convincing explanations of social phenomena will suffice in lieu of actual proof.

We can now see, from a broader perspective than before, that Marx's entire procedure is based on the circular type of reasoning we first encountered when discussing his method. Seeking to prove that socialism will emerge more or less inevitably out of the internal dynamics of capitalism (and all previous history), Marx looked

- nature of humanity and in the structure of human history and society.
- 7. In addition to representing a body of theory, Marxism insists that it is a guide to revolutionary action. Beyond the general demand that Marxists organize the workers to overthrow capitalism, it mandates that specific measures be taken by revolutionaries should they be in a position to do so. These include the establishment of a dictatorial state, the nationalization of all property in its hands and the repression of all those who resist. When carried out, such measures lead to the establishment of a totalitarian society.
- 8. Rather than representing the outlook of the proletariat and the path to freedom, Marxism can best be understood as an ideology that expresses the aspirations of certain socially-concerned intellectuals and others to reorganize and rule society according to their values. Rightly offended by the inequities of global capitalism, such people are attracted to a worldview that promises to replace it with what they see as a rational, just and truly democratic industrial system, one in which private property and social classes have been eliminated, and economic production and distribution are carried out according to a conscious, scientific plan rather than by means of the market.
- 9. Like all programs advocating an ideal society, Marxism contains an elitist potential. Believing itself to be the truth, it posits its vision as the only truly rational society and its strategy as the only way to achieve it. It simultaneously assumes that the purported agents of the socialist revolution, the working class, will automatically come to agree with it. It thus defines away the possibility of a conflict between the Marxist program and the desires and interests of those it claims to represent.

- 10. The elitist potential of Marxism becomes actual when, after a successful revolution or some other event that enables them to assume power, Marxist revolutionaries, pursuing the strategy prescribed by their theory, set up a centralized state they call and believe to be the dictatorship of the proletariat. They then have both the opportunity and the power to impose their vision on the rest of society, including the workers. When the workers (or anyone else) resist, they are defined as suffering from *false consciousness* (or just plain *counterrevolutionary*), and repressed.
- 11. Generally speaking, Marxists do not recognize the elitism entailed in their worldview. Trapped in the presuppositions of Marxism, they honestly believe that the revolution they seek to lead will eventually result in a stateless and classless society-the true liberation of humanity-or at least in a society far more efficient, just and democratic than capitalism. It is precisely this delusion that gives them the moral fervor and self-discipline to carry out the Marxist program and the repressive measures it mandates.
- 12. Therefore, although Marx claimed that his worldview would liberate humanity, the logic of his program is to recreate and reinforce the relations of domination and oppression he claimed to have transcended.
 - The seeds of the historical results of Marxism can be seen in Marxist theory if one looks beneath the surface. This includes Marx's theory of capital, which, surprisingly, has often been held up by anarchists and other anti-Marxist radicals as a convincing critique of capitalism, somehow independent of the authoritarian content of the rest of the Marxian worldview. It will be the purpose of this article and its companion to demonstrate the erroneousness of this view.

At the time Marx and Engels were developing their world view, the philosophical standpoint that appeared to be the basis of scientific theories was materialism, the belief that the fundamental reality of the universe is matter and that consciousness and ideas are products of the motion and organization of material entities. As a result, Marx and Engels assumed that a scientific theory of society had to be materialistic, and of all the social spheres, it seemed to them that the economic one was the most material. After all, economics deals with material objects: tools, machines, clothing, food, etc. In contrast, the political, cultural and ideological realms involve decidedly less material entities. Ergo, a materialist theory of society had to be based on economics.

In addition to being material, the economic realm seems most science-friendly in another respect. Science searches for constant relations and recurring patterns that can be discerned under a mass of apparently random changes. Through experiments, observation and other ways of collecting data, and with a healthy dose of intuition, scientists develop scientific hypotheses that are meant to explain the phenomena under investigation.

These hypotheses are then checked through their ability to explain and, where possible, to predict events. Confirmed by their success at such explanation and prediction, the hypotheses become theories and ultimately what we call *scientific laws*. If a given set of phenomena cannot be reduced to some kind of abstraction, that is, if one can't discern some general and repeatable relations, patterns and dynamics among them, they do not become the material of science.

Now, of all the realms of society, the one that appears most amenable to scientific treatment is the economic. In the world of economics, in other words, one can most readily discern from among the chaotic, *gritty* events of social life the relations, patterns and dynamics that can be built into a scientific theory.

Here, for example, one can conceive of and analyze the nature of commodities and the overall dynamics of the market. One can contractual form of hierarchical relations, these economic developments were in fact caused by prior conditions of a non-economic nature. These included the geography, climate and prior history of northern Europe, all of which combined to give birth to the politically decentralized society known as feudalism. And this in turn made possible the irruption of (bourgeois) freedom into, and its eventual conquest over, class-divided, state-dominated societies, including, of course, our own.

ECONOMICS: SCIENCE OF HUMAN BEHAVIOR?

Aside from the purely philosophical issues, the main reason to make the claim that one area of social life (the development of the mode of production), determines the nature and evolution of society as a whole is to be able to predict the future development of society. For if all of society ultimately rests on and is determined by the development of one particular social sphere, all one would need to do to predict future social conditions is to discern the underlying logic of that realm and to project that development into the future. How that sphere, or social *factor*, develops would then dictate how society as a whole will evolve. In other words, if one facet of society were the determining factor in social development and if one could discover the logic or *laws of motion* of the evolution of that sphere, one could predict the evolution of society, in the same way that physicists can predict the future state of the universe.

Not only does this explain why Marx advocated his version of what we might call monocausal social determinism, it also helps to explain (in addition to the overall plausibility of his position) why he singled out material production as the determining factor. Of all the forms of human relations, it is the economic one that most readily lends itself, or appears to lend itself, to scientific treatment.

THE ROLE OF THE THEORY OF CAPITAL IN THE MARXIST WORLDVIEW

Marx and Engels called their brand of socialism *scientific*, in contrast to those of the other advocates of socialism, whom they dubbed utopians. In Marx and Engels' view, the utopian socialists elaborated their vision of the ideal society independently of an analysis of the internal dynamics of capitalism. Moreover, when they tried to set up such societies, they did so as small colonies outside, insofar as this was possible, the social mainstream. In this sense, these reformers, among them Robert Owen, Henri Saint-Simon and Louis Fourier, represented the tradition of Thomas More. More's book Utopia, written in 1516, describes an ideal society that had been established on an island in the middle of the ocean. Thus the term *utopian socialists*. (*Utopia*, incidentally, means *nowhere* in Greek.)

Insofar as the utopians had a strategy to reform society, this consisted of either (1) convincing the ruling classes to implement the utopian models, giving up their power and social position in the process, or (2) setting up such societies in places at least somewhat removed from traditional social structures and then hoping that the majority of the world's people would eventually follow these examples.

Marx and Engels felt that such plans were doomed to fail. Instead, they sought to ground their conceptions, both of what socialism would look like and of how it would be established, on the internal dynamics of capitalism. For them, socialism could only be created if it emerged as the outcome of social development rather than as something artificially conceived and implemented outside of the historic process.

In addition to a scientific theory of history, this concern to ground socialism on the internal workings of capitalism required, as a specific part of that theory, an analysis of capitalist society,

which Marx and Engels saw as the latest stage of historical development. *The Communist Manifesto*, the most famous programmatic statement of Marxism, published in 1848, was an early expression of this attempt to demonstrate that socialism is the necessary outcome of the internal logic of capitalism and, in fact, all of history.

In 1852, Marx described his overall position in a letter to one of his followers:

"And now as to myself, no credit is due to me for discovering the existence of classes in modern society or the struggle between them. Long before me bourgeois historians had described the historical development of this class struggle and bourgeois economists the economic anatomy of the classes. What I did that was new was to prove: 1) that the existence of classes is only bound up with particular historical phases in the development of production, 2) that the class struggle necessarily leads to the dictatorship of the proletariat, 3) that this dictatorship itself only constitutes the transition to the abolition of all classes and to a classless society." (Marx to J. Weydemeyer, March 5, 1852, in Karl Marx, *The Eighteenth Brumaire of Louis Bonaparte*, International Publishers, New York, 1963, p. 139. Emphasis in original.)

POLITICAL ECONOMY TO THE RESCUE

At about this time, Marx decided to substantiate this contention through a detailed study of economics, then called *political economy*, and the presentation of its results. (Although he had studied political economy previously, it thereafter became the major focus of his intellectual endeavors, entailing many hours of research in the British Museum.) The result was what he labeled a *critique of political economy*, which is simultaneously a criticism of the theories of pro-capitalist (*bourgeois*) economic theorists and a detailed analysis of capitalism.

fined and customarily sanctioned relations of domination and subordination, such as those that characterized slave or feudal societies. It was only with the development of commodity production and capitalism that other, freer, types of hierarchical relations became possible. Thus, according to the Marxist argument, it was the change in the nature of material production that brought about or caused the changes in the social sphere.

But what this argument fails to address is how this processthe development and eventual social domination of commodity production-began. Commodity production existed for thousands of years prior to the period when it began to undermine feudalism and lay the basis for capitalism. Yet it always remained subordinated to the dominant economic, social and political forms in which it existed. It did not, in other words, lead to the destruction of the societies in which it found itself and to the creation of capitalism. What was it, then, about feudal society that enabled this latter, world transforming process to occur?

A Marxist would look for the answer in the realm of material production, but to me the answer lies not in the economic nature of feudalism, but in feudalism's political structure. Specifically, it lies in the fact that feudalism was decentralized-political power was fragmented-so that neither the state, nor the Catholic Church, nor any other institution was powerful enough to impose its sway throughout the entire realm in which feudal, or feudal-type, societies predominated. It was this fact-the decentralized and limited nature of political authority-that enabled tiny burgs or towns to emerge outside, as it were, the social and legal bonds of these societies. And these burgs were the seedbeds of both the expansion of commodity production and the development of the specific type of social relation, the so-called *free labor contract*, that makes capital-ist production possible.

In other words, while it may be true that it was developments in the economic realm which, once launched, caused the destruction of feudalism and the development of capitalism and its specific

to identify them all, let alone come up with an explanation that explains precisely why this event and not some other occurred when, where and how it did. As a result, the social sciences have made very little (if any) progress in developing deterministic-type theories. At best, only tiny facets of social life are predictable. Thus, it may be that social reality is strictly determined. But if the complexity of social life and the resultant limitations of our knowledge prevent us from being able to understand precisely why a given historical event occurred or to be able to predict future social developments, this amounts to the same thing, practically speaking, as saying that social life is not strictly determined. In other words, when it comes to social life, we cannot, with the present state of our knowledge, predict the future.

But this is precisely what Marx claimed to be able to do. Reflecting the conceptions of his era, he insisted: (1) that social reality is determined in the same sense as the macro world of physics; (2) that he had in fact discovered the laws of social development; and (3) that based on these laws he had accurately predicted the future of human society, specifically, the collapse of capitalism and the establishment of socialism. But in light of what we now know, we can see that Marx's contention, both his broader claim and his specific assertion that the development of the mode of production determines the evolution of society as a whole, is nothing more than an extravagant assumption.

Even on a less philosophical level, we can see that Marx's insistence on the determining character of material production is questionable.

In reply to our discussion of the non-economic relations that characterize capitalism, a Marxist would argue that these relations are themselves based upon economic exploitation. The proof of this is that they were brought about by developments in the economic sphere, specifically, the expansion of commodity production to the point where it dominates economic and social life. Before this, social relations were constrained within direct, explicitly de-

What is crucial to understand is that Marx's theory of capitalism is not simply an analysis of the capitalist economic system. It is also and primarily an attempt to prove points 2 and 3 above: that the internal dynamics of capitalism necessarily-logically and inevitably-lead to the dictatorship of the proletariat, which will result in the establishment of a classless and stateless communist society.

In other words, the theory of capital is a crucial component of the Marxist system, not merely an independent adjunct which can be accepted or rejected according to one's taste. As a result, a consistent anti-authoritarian critique of Marxism must address it.

This will not be easy. For one thing, the theory is vast in scope, very complex and difficult to summarize. For another, Marx did not complete it. Though he published several pamphlets and a book presenting parts of his analysis, only one volume of his most in-depth presentation, *Das Kapital/Capital*, was published during his lifetime, in 1867. The other two were edited and published by Engels after Marx's death. Added material, *Theories of Surplus Value*, often referred to as Volume 4 of *Capital*, was published by Karl Kautsky in 1905–10, and reissued in a new arrangement and translation by the Institute of Marxism-Leninism in Moscow in the 1960's. An additional work known as the *Grundrisse*, a kind of outline of the overall plan of *Capital*, was only published in 1939 and translated into English in 1973. As a result, any critique of the theory, and certainly one that appears in articles in a journal, has to be both limited and at least somewhat conjectural.

Given this, what I propose to do below and in the following article is to outline some of the key facets of Marx's analysis and show that, rather then constituting a scientific confirmation of the Marxist program, it is infused throughout with the unproven presuppositions of the Marxian worldview.

Although I have tried to outline Marx's theory as briefly and as clearly as I could, I recognize that it is both obscure and dry. Those not willing to struggle their way through these sections are invited to skim them. Hopefully, my argument will still be discernible.

I. MARX'S METHOD

To analyze capitalist society, Marx employs a method of abstraction. Since it is not easy to investigate social dynamics in a laboratory, Marx isolates the phenomena he wants to analyze through a mental process. Specifically, he temporarily eliminates from consideration what he deems inessential at any given level of analysis in order to focus on what he sees as the fundamental dynamics that are at work. After he investigates these processes, he successively introduces into his analysis the phenomena he previously excluded. He also explicitly chooses to analyze British capitalism, on the grounds that when he wrote, the system was most developed there and that Britain merely showed every other society its future.

In reference to this choice and as a statement of his overall method, Marx writes: "In the analysis of economic forms, moreover, neither microscopes nor chemical reagents are of use. The force of abstraction must replace both." (*Capital*, Vol. 1, International Publishers, New York, 1967, p. 8.)

The result of Marx's approach is a series of models representing the internal structure and dynamics of various facets of capitalist society, from the more fundamental to the less. When taken together, these models are meant to explain the workings of capitalism as a whole. Actually, it is more accurate to say that Marx devises a model of capitalist society that evolves from the simple to the increasingly complex. Moreover, this evolution corresponds to the historical development of capitalism.

To be specific, Marx begins his analysis by investigating the nature of commodities. To do so, he describes and analyzes a soci-

for both. Other realms of physics, such as thermodynamics (heat), the flows of fluids and other phenomena (which reveal a property known as chaos), and much of biology are also probabilistic.

Scientists and philosophers of science don't quite know what to make of all this and the debate continues to rage. At least two questions are involved; moreover, they appear to be inextricably linked. One is what really exists, that is, whether events are in fact determined, in the sense that they are uniquely ordained by prior events. The other is the power of our knowledge: whether we can precisely know what this reality is and, as a result, be able to predict future events. Thus, it may be that reality is determined, but that the limitations of our current theories or our inability to precisely perceive the phenomena in question prevent us from being able to make precise predictions of future developments. (This was, in essence, the position Albert Einstein took in relation to the philosophical problems presented by quantum mechanics.) It is also possible that reality is not fully determined, and that the limitations on our ability to predict reflect the de facto indeterminism of reality; some facets of reality only appear to be predictable. Or, perhaps some aspects of reality (the macro world of physics) are determined while others (the realm of subatomic particles) are not. (This, more or less, is the interpretation accepted by most scientists today.)

The problems concerning the question of determinism in these spheres become even greater in the realm of social life, the fields studied by history, economics, sociology, political science, psychology, cultural studies, etc. And because social life is so complex, the problem of distinguishing between what is and what we can know seems virtually insurmountable.

Take any given social or historical event. There are so many factors involved, so many individuals with their own ideas, tastes, emotions, their own backgrounds, so many external circumstances-geography, climate, economic conditions, political developments, social customs, national traditions, etc.-that it is impossible even

In Marx's day, scientific laws were presumed to be deterministic: all phenomena were believed to be directly and uniquely determined by prior phenomena, with no room for chance. In other words, things happen the way they do and can only happen this way. In this conception, what most people call chance merely reflects our ignorance of the true causes of any given event.

The question of determinism is integrally connected to that of prediction: the deterministic nature of a scientific law is reflected and revealed in its ability to enable one to predict the future state of a given system or structure. Thus, in the deterministic view, if one (a so-called omniscient observer) knew the present positions of all the particles in the universe, one could, by extrapolating the laws of physics, predict the precise state of the universe at some future time. (This was the example used by the great French astronomer, Laplace.) In Marx's day, most scientists believed that all aspects of nature were capable of being explained by theories that have this predictive quality, and so it was thought that all natural reality is determined in this sense.

Marx's conception of science is thoroughly embedded in this outlook. He thought social reality was determined in the same way as the physical world and saw himself as developing a comparable science of society and a scientific form of socialism. In other words, he tried to extend science, as understood in his day, to the world of social phenomena. (He wasn't the only one. Before him, the socialist Henri Saint-Simon had sought to carry through the same project, while Saint-Simon's disciple, Auguste Comte, is considered the founder of modern sociology.)

Since that time, we've come to realize that while some scientific theories, such as the theory of relativity, are deterministic, others, such as those that pertain to the realm of subatomic particles (quantum mechanics), are not. In the latter world, one cannot even determine the precise current state (specifically, the exact position and momentum) of any given subatomic particle or set of particles, let alone a future one; all one can get is a range of probabilities

ety whose members are all small independent producers of commodities, such as crafts-persons and small farmers, who employ no laborers. This society is known in Marxist literature as *simple commodity production*. Such a society has never existed as a discrete entity in the real world. At best, it existed in truncated forms within or on the edges of other societies, such as feudalism. Marx uses this model to explain the nature of commodities and what he calls the *laws of motion* of their production and exchange. (See *Capital*, Vol. 3, as above, pp. 177–178.)

With this as a foundation, Marx then discusses a society in which there are only industrial capitalists and workers. In other words, he wants to analyze capitalism, which is a particular type of commodity-producing society, reduced to its bare bones; without a state, commercial and financial capitalists, a professional middle class, small business-people or peasants; and with circulation (the buying and selling among capitalists) and international trade playing no part. This is necessary to isolate the defining features and discern the central dynamic of capitalist manufacture or production, which, to Marx, is the core of the system.

This second model derives from the first. More precisely, the first evolves into the second, in theory and historically, through the development of its internal dynamics. Specifically, as commodity production expands and develops, one group of producers under simple commodity production comes to be the owners of the means of production (tools, machines, etc.), that is, capitalists, while others are stripped of their tools, etc., and become proletarians, whose only commodity is their labor-power.

Once described, this second model is used to investigate the nature of capitalist production. Over time, the same method is utilized to analyze and factor in other, less fundamental aspects of capitalist society, resulting in additional models of increasing complexity. When taken together, these partial models are supposed to yield an analysis/model detailed enough to be able to predict the future evolution of capitalist society as a whole.

CIRCULAR REASONING

At first glance, Marx's approach seems to be a reasonable way to proceed. It also appears to be an exemplification of the method used by two of the founders of political economy, Adam Smith and David Ricardo, and still employed in the social sciences. As long as it is utilized to explain a relatively narrow and carefully defined range of phenomena in isolation from other facets of society, it is legitimate.

But when looked at more carefully, particularly when his analysis of capital is viewed in the context of his broader theory, Marx's approach can be seen to be an abuse of this method.

Even limited to economic phenomena, Marx's procedure is questionable. Whenever he reintroduces into his analysis factors he previously excluded (for the sake of simplification), he always assumes, but never demonstrates, that these additional factors do not vitiate the dynamics he has discerned through the use of this prior exclusion. In other words, he always assumes that his partial models are totally consistent with each other. (This is in fact the basis of the most famous critique of *Capital*, Eugen von Böhm-Bawerk's *Karl Marx and the Close of His System.*)

But however questionable Marx's approach is when applied to the strictly economic aspects of capitalism, it becomes highly suspect indeed when he uses it to incorporate non-economic phenomena, particularly the state, into his analysis. In this case, it represents an example of circular reasoning: it assumes at the beginning of the argument what one is trying to prove by that very argument. This is because of the role the analysis of capital plays in Marx and Engels' overall worldview.

A key tenet of the Marxist theory of history is that the foundation of human society and the determining factor in history is economic, or to put it Marxistically, material production. Specifically, for Marxism any given society consists of two basic parts: (1) the *mode of production*, the combination of the forces of pro-

sectors of the economy for months, if not years, and threw millions of people out of work. In response, the workers launched strikes and organized mass movements for social improvements and political rights. Some workers, along with concerned intellectuals, developed socialist, anarchist and other radical ideas. Not least, these developments led, or seemed to have led, to revolutions in 1830 and 1848. Before that, the same processes, at an earlier stage of development, appeared to have brought about the French Revolution, the most powerful social upheaval of the era. In short, at the time Marx and Engels were elaborating their ideas, it certainly seemed as if the development of capitalist industry, and economic activity in general, were shaping the evolution of the whole of society.

Marx's view of the determining role of economic activity also seems plausible in light of the fact that if one looks back at history from the vantage point of today, one pattern that seems to emerge most strikingly from the apparently chaotic events, tendencies and countertendencies, is the growth of humanity's technical apparatus and economic power. Whatever else has happened throughout our history, our technical prowess and economic power have certainly increased, and all the other realms of society have been modified accordingly.

Yet, it is one thing to recognize that the development of material production is a powerful, even a preponderant, factor in social life and has therefore played a major role in shaping our history. It is another thing to contend that it is the determining factor, the one that is ultimately responsible for the character and evolution of all the other spheres of society and society as a whole.

This question of determinism-whether a given phenomenon or event can be said to be determined, strictly and narrowly caused, by another phenomenon or event-is a complicated one with a long history of controversy behind it. It is one of those issues which has not been resolved and, in my opinion, never will be. Although there isn't space here for a lengthy discussion of the issue, I can't resist discussing it a bit.

ECONOMICS AS FUNDAMENTAL

This decision flows from and reflects Marx's contention that it is the events that occur in the economic realm that determine what happens in the rest of society. But this position, which is the basis of Marx's entire worldview, is precisely what needs to be proved if Marx's analysis of capitalism is to have any scientific validity. But it never is. It's not even demonstrated or really even argued for. It is simply assumed. And once it is, Marx's *proof* that socialism is inevitable is already half made.

One of the reasons why Marx can get away with this type of argument is that his position that economics is the determining factor in the development of society is, at first sight, rather plausible. After all, people must eat, be clothed and have shelter if they are to survive and do anything else, such as have children, establish a state, produce art and science, participate in religious activities, etc. And since economic activity appears so fundamental in this sense, it seems reasonable to believe that material production is the foundation upon which all the other facets of society arise and develop. This conclusion seems particularly true of capitalist society, in which the narrowly economic aspect of society-industry, commerce, the development of technology-has acquired an especially dynamic character, certainly in comparison to earlier societies. (Indeed, in precapitalist societies, one can hardly discern a distinct economic realm at all.)

This latter consideration was probably crucial in the development of Marx and Engels' outlook. At the time they were developing their theory, European society was undergoing a vast upheaval. Capitalist industry was growing rapidly, particularly in England but in other countries as well, and as it did so, it had a profound influence on society as a whole.

The growth of industry increased the size of the working class and condemned the workers to live in filthy, disease-ridden slums. It caused periodic economic crises, which shut down significant duction (tools, machines, etc.) and the relations of production (the relations between social classes) that constitutes the material *base* of that society; and (2) the *superstructure*, which includes the state and political relations in general, social customs, religion, philosophy, science and art.

While Marx conceded that the superstructure has its own internal dynamics and a degree of independence vis-a-vis the base, he insisted that, *in the final analysis*, the development of the base determines the development of the superstructure and therefore of society as a whole. In everyday language, the development of a society's economic system determines the evolution of the entire society.

Now, as I mentioned above, what Marx was trying to demonstrate through his analysis of capital is that the working out of the economic dynamics of capitalism will lead to capitalism's overthrow and replacement by socialism/communism. To do this, he develops a model that represents an abstract, simplified version of the capitalist economy and that excludes from consideration what he deems inessential, including the role of the state and other non-economic factors. He then uses this model to analyze the fundamental dynamics of the system and show how it develops.

But to actually prove Marx's main point (that the development of capitalism will ultimately bring about the socialist revolution), it is not enough to construct an economic model and show how it evolves. One must also demonstrate that the model describes the development of the entire society. In other words, one must show that the dynamics analyzed through the model determine the evolution of the factors that Marx originally excluded from consideration and therefore the evolution of society as a whole.

But Marx never does this. He never proves that the economic dynamics determine the overall development of capitalist society. He always assumes or asserts it. In other words, Marx assumes throughout his work, including the analysis of capital, that the economic dynamics of capitalism determine capitalist society's over-

all evolution, which is, I contend, what he is really trying prove through this analysis.

This can perhaps be seen most clearly in Marx and Engels' discussion of the role of the state as capitalism matures. They contended that as capitalism develops, capital is concentrated into ever larger blocks and centralized in ever fewer hands. Eventually, they predicted, the state will be forced to take over ever greater portions of capitalist industry and own an ever larger proportion of the total social capital.

The result would be a highly monopolized and statified form of capitalism, in which the state owns and runs most of the economy, the vast majority of citizens are workers, and virtually the entire (tiny) capitalist class has been turned into economically inactive collectors of dividends. From this condition, we are assured, the need to overthrow the system and replace it with socialism will be obvious to all, particularly the now-massive proletariat. (For a discussion of this, see Friedrich Engels, "Socialism: Utopian and Scientific", in *Marx and Engels: Basic Writings on Politics and Philosophy*, edited by Lewis S. Feuer, Anchor Books, Doubleday and Company, Inc., Garden City, New York, 1959, pp. 101–104.)

There are two crucial but unstated assumptions here. One, which will be discussed in the next article, is that the tendencies toward the concentration and centralization of capital will be carried out to their logical conclusions. While such tendencies certainly exist, they have not been carried out anywhere nearly to the extent Marx and Engels predicted.

The other is that the state acts in a manner totally consistent with the economic model, in other words, that the actions of the state are determined by the economic dynamics Marx discerns: as capital gets concentrated and centralized, the state will take it over. While the state has taken over sections of capitalist industry and has increased its intervention throughout the economy and society as whole, this process, too, has by no means reached the point that Marx and Engels predicted and probably never will. It seems not to

powerful apparatus whose function is to maintain the existing social system under which the majority of people serve the needs of a tiny ruling class. Moreover, it takes our money and, at times, our labor to serve its purposes. It, too, is a lever through which an elite mobilizes the energy and other resources of those beneath them in the social hierarchy to serve their own interests.

In fact, any human relation in which one person or set of people, by dint of political power, legal status, wealth or merely by force of personality, has another individual or individuals pursue his/their (the former's) interest, has this exploitive character.

What is common to all the relations we have described is: (1) one person or group has authority, or power, over another or others; (2) this power is utilized to promote the interests of those who have it, which reinforces their power; and (3) the oppressive nature of these relations is obscured by the fact that they are entered into, or seem to be entered into, voluntarily. Through these relations, people at the top of the hierarchy are able to direct the activities of those below them and to utilize them for their own ends. In the same sense that Marx describes the relation between capitalist and worker, the people at the bottom are exploited.

Seen this way, what Marx calls exploitation is merely the specifically economic variant or manifestation of a more general type of social relation that characterizes capitalist society and on which it can be said to be based. Theoretically, then, someone trying to analyze the nature of capitalism as a social system might have focused on any of the oppressive relations that characterize the system. Or, even better, he/she might have tried to discern the characteristic common to all these relations, that is, to discover the nature of the more general social relation of which economic exploitation is a variant. Instead, Marx chose to focus on the economic realm and arbitrarily reserved the term exploitation to it.

relatively democratic groups), it is primarily their power, influence and status in society that are increased. The organization serves as a vehicle to carry out their aims, magnifying their own efforts, as a kind of lever, through mobilizing the resources of the rank and file.

In what fundamental way does the relationship just described differ from that described in Marx's analysis of capitalist exploitation? The leaders utilize the members' energy, thoughts and resources to increase their own power. And, like the capitalists, they do so through a free exchange. The members are not cheated. They join voluntarily and get something out of their participation (otherwise they wouldn't join or continue to be members). Yet, through this relationship it is the leaders' interests that are served. This, in my view, is a form of exploitation.

Even a *good* traditional (patriarchal) marriage-in which the husband is not physically or mentally abusive and even when the wife works and shares some of the decision-making-reveals the same dynamic. To the degree that the husband dominates the relationship and makes the basic decisions, the chief advantages of the arrangement go to him. He directs his spouse's efforts towards what are his goals, however much she shares them. The wife gets something out of the relationship, and her participation, at least legally and formally, is voluntary. But her efforts largely serve to achieve her husband's purposes. Here too, it seems to me, we have exploitation.

Not least, the relation between the state aid ordinary citizens in so-called democratic societies has the same basic character. In theory, such citizens are free: we have civil liberties, we can form political parties and other institutions to fight for our rights and interests, we even vote (at least some of us do) to determine who constitutes the government. And, as we were told during the Cold War, we can leave the country if we don't like it here.

Despite this freedom, we are oppressed and, I would argue, exploited. Rather than being our instrument, the state constitutes a

have occurred to them that the capitalist state might resist taking over industry, might divest itself of industry it previously took over and might even break up specific industries, all in the interests of maintaining the viability of the system as a whole. As we know, the state has done this in the past and will probably do so in the future.

It is certainly acceptable to construct a model based on a few factors and from which others have been excluded. But when one does so, one needs to be explicit about what one is doing and to avoid making claims for the model that are beyond what it can demonstrate. In the case before us, it is legitimate to develop a model of capitalism's economic dynamics and claim that this is how the system works, as long as one adds, *all other things being equal*, that is, as long as we explicitly exclude the influence of other factors, such as the state, and do not try to sneak them in afterward without accounting for their impact. This is Smith and Ricardo's approach and it flowed from and was consistent with what they were trying to demonstrate.

Smith and Ricardo were ardent supporters of capitalist manufacture and trade and sought to liberate them from the control of the state and the entanglements of feudal relations. Among other things, they wanted to demonstrate: (1) why capitalist manufacture is so productive; (2) how the dynamics of the market enabled the system to regulate itself without conscious direction; and (3) that the system would grow fastest and function most effectively if the state did not interfere. They never contended that capitalism would function as their models demonstrated if the state did intervene. And they did not use these limited models to predict the long-term evolution of the entirety of capitalist society, let alone the future of humanity.

Marx sought to base his own theory on Smith and Ricardo's work. But rather than justifying capitalism, as they did, he wanted to show that the dynamics they analyzed entailed internal contradictions that would eventually lead to capitalism's overthrow and

replacement by socialism. However, in his attempt to do so he made illegitimate use of their method. Where they used their models to show how the system functions when the state does not intervene, Marx used his to try to confirm his broader contention that economic dynamics determine the function of the state and the evolution of society as a whole. But, as we have seen, he can only do this by assuming it from the beginning.

Thus, while it may appear that Marx's critique of capital has demonstrated that the laws of capitalist production determine the evolution of capitalist society and make socialism inevitable (or highly likely), this is not so. As a result, even if Marx's analysis of the economic dynamics of capitalism is entirely correct, this does not mean that capitalist society as a whole will evolve as he said it would or that this will bring about socialism.

plies. Yet, hierarchical societies entail various types of oppressive relations in addition to the one that Marx calls exploitation. Under capitalism, for example, there are white supremacy/racism, male chauvinism/sexism, political domination, and the authoritarian intellectual/psychological relations apparent in religious beliefs and political ideologies. In my view, these oppressive relations are essential characteristics of the system and not mere reflections or derivations of the supposedly more fundamental relation of economic exploitation, as Marxists argue.

Intriguingly, the forms these non-economic relations take under capitalism are effectively described by Marx's analysis of capitalist exploitation.

POLITICAL/SOCIAL ORGANIZATIONAL EXPLOITATION

Take, for example, the relation between leaders and ordinary members of any hierarchical organization, such as a trade union, a church or a political party. For their part, the rank-and-file members voluntarily join and participate in the activities of the organization because they agree with its program, goals and methods. To varying degrees, they give their time, energy, thought and money to the organization, and insofar as it achieves its goals, the members get the satisfaction of seeing their own aims promoted. In other words, the members voluntarily participate in the organization and get something out of it, something they believe to be at least roughly equivalent to the energy and other resources they devote to it.

Yet, the real advantage of this arrangement goes to the leaders of the organization. To the degree that the organization is hierarchical, it serves to augment the power of those at the top of the hierarchy. Because the leaders ultimately make the decisions about the activities and direction of the organization (which they do even in

them, then the fact that the capitalists wind up with anything is, by definition, exploitive. In other words, since, according to Marx's definition, all value is traceable to labor, the entire product belongs to those who work, the workers., And the possibly productive contribution of capital, the state, or any other social factor, is never addressed; it is simply defined away.

Despite the fact that his entire demonstration of the exploitive nature of capitalism rests on a definition, Marx never explicitly argues for this definition (that labor is the source of all value). It is merely stated and taken to be obvious. As he explicitly admits, his conception of value, along with much else in his analysis, was originally developed by Smith and Ricardo. Marx took it over, modified it somewhat and then used it for his own purposes, among them to demonstrate that capitalism is exploitive and to show how this exploitation occurs, Ironically, then, Marx relies on the authority of bourgeois economics (when, in his opinion, it was still scientific) to establish his point, Look, he says in effect, the capitalists' own science demonstrates that capitalism is exploitive.

But if Marx's definition is wrong, if labor is not the sole source of value and capital cannot simply be described as accumulated labor, then Marx's argument doesn't hold, at least not without being significantly modified. In short, while it may seem as if Marx has demonstrated the exploitive nature of capitalism, he really hasn't. He's just defined it that way.

EXPLOITATION: ONLY ECONOMIC?

In addition to merely defining capitalism as exploitive, Marx uses the term exploitation in a very selective and self-serving manner, so that it furthers his argument without appearing to do so.

In Marxist theory, exploitation only occurs in the realm of material production: this is the only area in which the term is ever used and, Marxists insist, the only sphere in which it properly ap-

II. COMMODITIES, VALUE AND THE ROLE OF THE MARKET

As I noted above, Marx begins his analysis of capitalism with a discussion of simple commodity production and the nature of commodities. This is because in Marx's view capitalism is a system of commodity production, in other words, a system in which goods are produced for exchange (through the medium of money), and in which the regulation of the economy is carried out spontaneously, through the operation of the market.

According to Marx's definition, a commodity is something that is produced in order to be exchanged. If one makes something for one's personal use, the object is not a commodity. It is only when one makes something with the intention of exchanging it for another product or selling it for money that that object becomes a commodity.

For Marx, each commodity has two kinds of value, one describing it qualitatively, the other quantitatively. The first is *use-value*, which is the particular use or utility of the commodity, defined by its specific characteristics. For example, the commodity in question may be a loaf of bread made of a particular type of flour and of a certain size and weight.

The other type of value is *exchange-value*, which, after further analysis, Marx shows to be the apparent or external form of what he calls simply *value*. This type of value is purely quantitative. In Marx's conception, the value of a specific commodity reflects the

amount of *socially necessary labor time* that is needed to make that commodity or, to continue our example, how long, on average, it takes to make that particular kind of bread at a given stage of economic development. In other words, a commodity's value is determined by the amount of average labor (the labor of an average worker, working with average intensity under average conditions), measured in time, that it takes to produce the commodity.

"We see then," writes Marx, "that that which determines the magnitude of the value of any article is the amount of labour socially necessary, or the labor-time socially necessary for its production." (*Capital*, Vol. 1, as above, p. 39.)

Marx often describes the value of a commodity as the amount of socially necessary labor that is *embodied* in the commodity. In contrast to use-value, which is qualitative, value is a quantitative measure by means of which different commodities can be related and compared and which serves as the underlying basis of the prices commodities are sold for on the market. In the Marxian analysis, labor is the source of all value, because, economically speaking, a commodity is a *congelation* of labor, a specific amount of average labor embodied in a material object.

This conclusion flows from Marx's assumption that all labor under simple commodity production and the majority of the labor under capitalism is this average (what he calls simple and abstract) labor, that is, unskilled. This is because, in Marx's estimation, the same economic processes that lead to the generalization of commodity production also lead to the reduction of most labor to this level. Specifically, commodity production, over time, destroyed the social bonds of feudalism. In so doing, it turned the serfs, once bound to the land, and the artisans, once enmeshed in the restrictions of the craft guilds, into propertyless proletarians whose labor is unskilled, or pure, abstract labor. What skilled labor remains under capitalism can be seen and analyzed as a compound of unskilled labor. Thus, for Marx, under simple commodity production and capitalism, commodities are not only products of simple, ab-

talism will inevitably collapse and (we can complete the thought) be replaced by a socialist society.

But merely saying this does not do away with Marx's moral argument for socialism. In fact, for Marx the scientific and the moral arguments mesh. This is because he assumes, as did Hegel, that history and morality ultimately coincide, in other words, that what he deems morally desirable (socialism) will actually come to pass. As a result, Marx's moral argument and his supposedly scientific one are combined, each one fueling the other. Yet, Marx hides his moral argument behind the scientific one. (This combination of moral and scientific arguments, along with the claim that the argument is not moralistic at all, is one of the things that gives Marxism such a powerful appeal. There is something deeply gratifying to be told that what one yearns for-a truly just society-is both affirmed and predicted by science.)

Of course, it is one thing to assume that socialism is inevitable (or highly likely) and another thing to prove it. And if it can't be proved, then Marx's case for the scientific nature of his brand of socialism collapses.

But Marx doesn't prove that socialism is inevitable; he only seems to prove it. And he does so via the method we've seen at work before: by assuming it from the beginning. This method-basing one's argument on assumptions that imply one's conclusions-is apparent in Marx's discussion of capitalist exploitation.

EXPLOITATION BY DEFINITION

First, rather than proving that capitalism is exploitive, Marx's demonstration is in fact tautological: it follows from his definition. Since labor is the source of all value and capital, as I'll discuss in the next article, is merely accumulated labor that the capitalists have expropriated from the workers, which is how Marx defines

equally. In effect, Marx denounces capitalism for defining equality abstractly and narrowly, and demands that it be extended from the political and juridical spheres, which is where the French Revolution left it, to the economic and social realm. In other words, he insists that equality be made substantial, not merely formal.

This demand to extend and redefine equality leads to Marx's adherence to the second standard in relation to which he judges capitalism. This is socialism, under which there will be no appropriation of the economic surplus by a ruling class. Thus, Marx's moral argument against capitalism is twofold: 1) the system is unjust; 2) things don't have to be this way; there's another way to run society that is not based on exploitation and all that that entails.

Despite this, Marx downplays and in a sense denies this moral argument. His advocacy of socialism, he contends, is not moralistic but scientific. He explicitly rejects-he even makes fun of-moral arguments. Such arguments, so we're told, are characteristic of *petty bourgeois* critics of capitalism, not Marxists.

In a preface to *The Poverty of Philosophy*, one of Marx's works polemicizing against such a critic, Proudhon, Engels put it this way:

"According to the laws of bourgeois economics, the greatest part of the product does not belong to the workers who have produced it. If we now say: that is unjust, that ought not to be so, then that has nothing immediately to do with economics. We are merely saying that this economic fact is in contradiction to our sense of morality. Marx, therefore, never based his communist demands upon this, but upon the inevitable collapse of the capitalist mode of production which is daily taking place before our eyes to an ever greater degree." (Friedrich Engels, Preface to the First German Edition of Karl Marx's *The Poverty of Philosophy*, 1884, p. 11, emphasis in original.)

In other words, as Marx sees it, his argument for socialism is not based on a moral argument but upon a (presumed) fact: that capistract labor. They are congelations or embodiments of this labor, and the amount of this abstract labor embodied in a commodity determines its value.

"As values, all commodities are only definite masses of congealed labour-time." (*Capital*, Vol. I, as above, p. 40.)

The twofold nature of value in commodity-producing systems reflects the fact that labor here takes two forms or, to put in another way, can be conceived of and analyzed in two ways. One form is concrete labor, the specific labor of specific individuals working under specific conditions. This concrete labor corresponds to commodities' use values. The other is abstract labor. This is the labor of the workers conceived as a mass of average social labor, labor carried out by average workers working under average conditions. This average social labor corresponds to commodities' exchange value or value, and, as we've seen, it is the amount of such average social labor that it takes to produce a given commodity that constitutes its value.

After analyzing the nature of commodities and the two types of value, Marx, following the general approach of Smith and Ricardo, shows how a system of simple commodity production (and by extension, all commodity-producing systems), distributes the labor of its economically active members among the various branches of production without conscious direction. This occurs through the market, specifically, through the deviation of market prices from the values of commodities caused by the effects of supply and demand.

For example, if at any given time too many of one type of commodity have been produced, some of the commodities will fail to find buyers and, as a result of the interaction between supply and demand, the price of this commodity will fall below its value. Consequently, some of the producers of these commodities, no longer able to sell them or no longer able to sell them at a profit, will shift their operations to produce other commodities or will go out of business. Eventually, fewer of the original commodity will be pro-

duced and, again as a result of supply and demand, its price will rise, back toward or even above its value.

If, on the contrary, too few of a given commodity have been produced, the price of this commodity will rise above its value. Spurred by the chance to make above-average profits, those producers already manufacturing this commodity will step up their production, other producers will shift their resources to begin producing it, and perhaps new producers will enter the field. Eventually, the increase in supply will lower the price of the commodity back toward or even below its value. In this way, in a herkyjerky fashion, the market establishes an equilibrium around which prices fluctuate. At this equilibrium, under simple commodity production, commodities exchange at their values. And it is through the continual establishment, disruption and reestablishment of this equilibrium that the resources, particularly the labor, of society are distributed among the different sectors of production.

In Marx's words: "The law of the value of commodities ultimately determines how much of its disposable working-time society can expend on each particular class of commodities. But this constant tendency to equilibrium, of the various spheres of production, is exercised, only in the shape of a reaction against the constant upsetting of this equilibrium." (*Capital*, Vol. 1, as above, p. 356.)

This analysis of the market and its role in the capitalist economy was a central focus of Adam Smith's book, *The Wealth of Nations* (1776). In it, Smith wrote that it was as if an *invisible hand* directed the flow of economic resources to the various branches of production. Smith's metaphor is another way of saying that the spontaneous, unconscious workings of the market effect a distribution of the economic resources of society that is rational and efficient.

But whereas Smith's terminology remains metaphorical (he doesn't contend that there truly is an underlying rational principle or force that governs the system), Marx takes Smith's metaphor and turns it into an actually existing economic *law* that directly

other commodity, realises its exchange-value, and parts with its use-value." (*Capital*, Vol. 1, as above, p. 193, emphasis in original.)

MORALISM OR SCIENCE?

For Marxists, the theory of surplus value is one of the most convincing aspects of his analysis of capitalism. Among other things, it seems to prove that capitalism is an exploitive system. But like the world view of which it is a part, it is a philosophical argument parading as scientific.

This is suggested by Marx's terminology: his very use of the word *exploitation*. In its normal usage, *exploitation* has a moral connotation. It implies that people are being treated in an unfair, unjust manner. To say that workers are being exploited usually means that they are being forced to work harder, and/or are being paid less, than they should be, according to some standard of fairness. To be against exploitation and to wish to end it, in this standard usage, is a moral or ethical stance, which is usually accompanied by a feeling, such as concern, pity or indignation.

Now, not only does Marx use the term exploitation, he employs it with its moral connotations very much intact. Marx's writings are infused with moral feelings-disapproval, disgust, bitterness, outrage, And Marx himself was clearly motivated by these emotions: why else would he have spent most of his life investigating, exposing and trying to overthrow what he obviously considered an inhumane, rotten system?

In fact, Marx does make a moral case against capitalism. He judges and denounces it on the basis of two interrelated standards. One, powerfully raised during the French Revolution and going back at least to early Christianity, if not to ancient Judaism, is the belief in human equality. (This is a moral equality, since human beings are not otherwise equally endowed.) Since human beings are morally equal, this judgment goes, they should be treated

hours. During this time, the worker produces commodities that are worth eight hours of labor. But, as we've seen, the worker is only paid the equivalent of five hours of labor. The difference-what the workers produce in three hours, which Marx calls *surplus labortime*-belongs to the capitalist. This is *surplus value*. It is embodied in the commodities the worker produces and is *realized*, that is, turned into money, when the capitalist sells the commodities.

In other words, in the course of a day's work, each worker produces, in value terms, not only enough to maintain him/herself and his/her children during this time, but an additional amount of value, a surplus value, which is appropriated by the capitalist even though the capitalist did not participate in the productive labor needed to produce it. In Marx's analysis, this is the uniquely capitalist form of exploitation: the production and appropriation of surplus value.

This process is made possible by the interaction, or contradiction, between the use-value and the exchange-value of labor-power. When the capitalists hire workers for wages, they pay them the exchange-value of their labor-power, how much it costs to produce it. But in the process, the capitalists get the right to use the use-value of this labor-power. This is the concrete labor of the worker, which includes his/her ability to create surplus value. Superficially, because the capitalists pay the workers wages based on how many hours they've worked or how much they've produced, it looks as if the capitalists purchase the workers' actual labor. In fact, they buy the workers' labor-power, which is worth less, in value terms, than the value they produce.

Marx puts this as follows: "What really influenced him [the capitalist-RT] was the specific use-value which this commodity [labour-power-RT] possesses of being a source not only of value, but of more value than it has itself. This is the special service that the capitalist expects from labour-power, and in this transaction he acts in accordance with the 'eternal laws' of the exchange of commodities. The seller of labour-power, like the seller of any

determines the functioning and overall evolution of capitalism. This can be seen if we look at the broad structure of Marx's analysis of capitalism.

THE INTERNAL CONTRADICTION OF THE COMMODITY

In the Marxist view the workings of the market can be explained by the interplay, or what Marxists call the contradiction, between the two kinds of value, use-value and (exchange) value. In other words, it occurs through the interaction between the concrete qualities of a particular commodity, which affect the demand and therefore the price of that commodity at any given time, and the average cost of production of that type of commodity, which determines the equilibrium around which this price fluctuates. Use-value and (exchange) value, in turn, represent two aspects, the qualitative and the quantitative, of each commodity. (Any given commodity is simultaneously a specific item with discrete qualities and an embodiment of a certain quantity of abstract social labor).

In Marx's analysis, the historical development of capitalism reflects the working out of the interplay between these two aspects of the commodity, or, to use Marxist jargon, the development of the commodity's internal contradiction. (This development through internal contradictions is what Marxists call *dialectical*.)

In these terms, capitalism's overall evolution can be described as follows. The internal contradiction of the commodity leads to the generalization of commodity production. (In more conventional language, the dynamics of the market, with its tendency to develop the social division of labor, and through this, to develop new products and to lower the prices of existing products, results in the expansion of the market economy and the dissolution of the bonds of feudalism.) Among other things, this leads to the creation of the commodity labor-power, the working class. In turn, the internal

contradiction of labor-power (as I'll discuss below), makes possible the exploitation of the workers and the production of surplus value, which, when reinvested, becomes capital. Finally, the internal contradiction of capital (to be discussed in the next article) leads to a revolution. This revolution will ultimately do away with capital, labor-power, commodity production and capitalism, and will bring to an end the entire epoch of contradiction-ridden modes of production.

Posed more abstractly, this evolution of the internal contradiction of the commodity represents the logical development of the concept of value. Value evolves through its internal contradiction to become surplus value/capital, which evolves through its internal contradiction into a totally new concept that is no longer value at all.

THE PHENOMENOLOGY OF LABOR

But if we recall that the two forms of value are expressions of the two forms of labor, we will realize that the dialectical development of value really represents the logical development of human labor under capitalism. Under this system-where the direct producers, the workers, are separated from the means of production-labor itself, as labor-power, has become a commodity, and the entire system appears to be driven by the dynamics of commodity production and exchange, a phenomenon Marx calls the *fetishism of commodities*. (See *Capital*, Vol. 1, as above, p. 71.)

In other words, since the commodity is an embodiment or *congelation* of human labor, whose abstract expression is value, the evolution of commodity production is in fact the external manifestation of the dialectical development of labor, through the contradiction between concrete and abstract labor, under capitalism. In short, in the Marxist view, the history of capitalism, from its ori-

THE PRODUCTION OF SURPLUS VALUE

For Marx, the key to unlocking this secret lies in understanding the unique nature of the commodity the workers sell to the capitalists, their labor-power.

Labor-power is qualitatively different from the other commodities utilized in the capitalist production process. When these other commodities-raw materials, tools and machinery-are used in production, the value embodied in them is passed on, at once or over time (as they are used up), to the commodities that are produced. As this occurs, value is neither created nor destroyed but remains constant, which is why Marx called these elements of production constant capital. In contrast to all other commodities, labor-power creates value (since, for Marx, labor is the source of all value). As a result, it is the only commodity which, when consumed in production, is capable of creating more value than it is worth. For this reason, Marx called it *variable capital*.

Since the value of a given commodity is equal to the amount of average labor necessary to produce it, the value of labor-power, for a given period, is equal to the amount of labor needed to produce that labor-power. In other words, the value of labor-power is equal to the amount of labor needed to maintain the worker and his/her family (so that the worker's children will replace him/her when he/she can no longer work), during this time. Because the productivity of labor under capitalism is such that it can produce an economic surplus, the worker and his/her children can be maintained for one day by an amount of value that is less than the equivalent of a full day's labor: let's say the worker and his family can be maintained for one day by the value equivalent of five hours of labor. This is what the capitalist pays the worker. The amount of time the worker spends producing the value of her/his labor-power Marx calls necessary labor-time.

But when the capitalist hires the worker for a day, he/she gets to use the worker's labor-power for the full workday, say, eight exploitation. This distinguishes them from non-class societies, including primitive communism and the socialism/communism that will follow the overthrow of capitalism, which are said to be non-exploitive.

In addition, in Marx's analysis class societies are distinguished by the way exploitation is carried out. In pre-capitalist class societies, exploitation was explicit and direct. Under slavery-based modes of production, for example, the entire product of the slaves' labor, including the surplus, was directly appropriated by the slave owners, who then gave some of it back to the slaves in the form of food and clothes. In feudal societies, serfs were obligated to work a certain number of days per week on land devoted to the lords' upkeep, or to give a certain portion of what they grew or a certain amount of money to the lords. Here, the serfs explicitly produced the surplus for the lords.

In contrast to such arrangements, exploitation under capitalism is hidden and indirect. The producing class, the working class or proletariat, is not owned by, socially bound to or legally subordinate to the capitalist class. Legally, the workers are free. Workers and capitalists all participate in the market as owners/sellers of commodities. The workers sell their commodity, their labor-power, to the capitalists and receive in payment wages which they use to buy food and clothes, etc., from other commodity producers. Yet, through this formally and legally equal relationship, which does not on the surface appear to be exploitive, the workers are exploited by the capitalists. Capitalism is the only class society based on this indirect type of exploitation, and to show how this occurs is one of the chief purposes of Marx's analysis of capital. He calls it the *secret of capitalist production*.

gins to its termination in the socialist revolution, reflects and is determined by the logical development of human labor.

For Marx, this represents only one phase in the historical evolution of labor. But it is the stage in which labor has been freed from social and customary constraints (such as the bonds of slavery and serfdom) and can develop freely.

In the Marxist view, labor under all forms of society has both a concrete character and an abstract character. Any act of labor is simultaneously the concrete labor expended to make a specific product and a certain portion of the total labor a given society has at its disposal at a given time. But as long as economic exchange is poorly developed and as long as the laborers are slaves or serfs, the abstract character of labor is not apparent, the distinction between concrete and abstract labor remains hidden and the contradiction between the two cannot express itself. The laborers are defined by the specific work they do and whom they do it for (whom they are owned by or bound to), and the fact that they are also expending a certain portion of society's total general labor is not readily apparent and has little social impact.

But under capitalism, for the first time in history the abstract, social character of labor becomes explicit. Here the workers are separated from the means of production, tools, machines, etc., and exist as a vast body of potential labor. Moreover, the process that has separated them from the means of production has also made the vast majority of them unskilled. As such, they are largely interchangeable within the production process. In this way, not only has the abstract, general character of labor become clear analytically, human labor under capitalism has, in fact, become overwhelmingly abstract, general labor.

It is because of this that capitalism is the only economic system that allows the contradiction within human labor-which, prior to capitalism, was entrapped in a web of non-economic relations-to become explicit, to unleash the tremendous power that previous lay hidden, and to evolve to its logical conclusion. And it is because

of this that, in Marx's view, it is only capitalism that makes human liberation, through the socialist revolution, possible.

In Marx's theory, then, it is the contradiction within human labor and labor's dialectical development that defines and drives the capitalist system. This contradiction lies behind all of what Marxists call the *contradictions* of capitalism. Eventually, according to the theory, these contradictions will bring about the socialist revolution.

PHILOSOPHY, NOT SCIENCE

Viewing Marx's theory of capital in this way puts it (and Marxism as a whole) in a different light than it is usually presented. In the first place, it is not a scientific theory. Scientific hypotheses and theories must be able to be verified, that is, subjected to testing procedures that enable them to demonstrate their ability to explain and/or predict natural or social phenomena. (Technically, they must have, to use the term utilized in a recent article in Scientific American, testable consequences which enable them to be disproved if they are false. See "Mapping the Universe", by Stephen D. Landy, Scientific American, June 1999.)

But how can Marx's theory be tested? By his own admission, the values of commodities cannot be directly ascertained, let alone measured. And as far as the predictive ability of Marx's theory is concerned, no broadly agreed-upon conclusions are possible. The theory predicts the overthrow of capitalism and the establishment of socialism/communism. But this prediction is so ensnared in problems of definition that few people will ever agree on what the outcomes of Marxist-led revolutions really were/are. Was the Soviet Union the dictatorship of the proletariat? Was socialism ever established there? What about Eastern Europe, China, Cuba, Vietnam, Nicaragua, Ethiopia? Even Marxists don't agree on a common characterization of Communist societies. In contrast to scien-

III. SURPLUS VALUE

After his discussion of commodities and value, Marx turns to the analysis of exploitation under capitalism, the production of surplus value. For Marx, this is the heart of the capitalist mode of production. To understand how surplus value is produced and to grasp the role this plays in Marx's analysis, one must first understand what Marx means by the term *exploitation*.

EXPLOITATION

For Marx, all class societies have as their *material basis* the fact that, at a certain stage of social development, the productivity of labor reaches a point where it can produce an economic surplus. This means that a given group of people can produce, in any given time, an economic product that is more than enough to enable them to survive and maintain their families during that period.

This surplus creates the basis for a ruling class to arise, a tiny elite that performs no productive labor but appropriates the surplus produced by the laboring class or classes. Beyond enabling the ruling class to live in luxury, the surplus is utilized to maintain that class's dominant position and the economic relations this entails, particularly by means of the state. The production of an economic surplus and its appropriation by a ruling class constitute what Marx and Engels call *exploitation*.

In the Marxist system, the concept of exploitation plays a crucial and defining role. For one thing, all class societies are characterized by the fact that they are based on and made possible by

At times this defense has approached the ludicrous. For example, the French Communist philosopher, Louis Althusser, spent much of his career trying to locate the precise line of demarcation between the *immature*, philosophical Marx and the *mature*, scientific one. Through a series of books and other writings, he periodically moved the date further back in Marx's life. Apparently, he kept finding philosophical content in what he previously thought was scientific.

He should have saved himself the trouble. The reality is that all of Marxism, not just the *early Marx*, is philosophical. Marxism is philosophy, not science.

tific theories, the Marxist theory of capital, like his world view as a whole, cannot be proved or disproved. It is, as I've said, a philosophical construct.

Secondly, Marx's analysis of capital is not materialist. Marx presents his analysis of capital (and his worldview as a whole) as a form of materialism-the belief that the ultimate reality of all things is matter, that is, atoms and other material particles. But what he is really presenting is the history of human labor as a concept or idea. To use philosophical language, Marx is describing the phenomenology of labor, the succession of forms that labor takes as it undergoes its logical and historical development.

This is a form of philosophical Idealism, the belief that ideas or concepts are the ultimate reality, not materialism. Where Adam Smith used the term *invisible hand* as a metaphor to help describe what he saw as the underlying rationality of the market, Marx turned the metaphor into an actually existing rational principle-a kind of unseen force-that drives and governs the development of capitalism.

Marx's very terminology reveals the Idealist character of his theory. As I've described, Marx defines the value of a commodity as the amount of socially-necessary labor embodied in the commodity, while commodities are said to be *congelations* of labor. In normal language, commodities are products of labor; once expended, the labor no longer exists. In contrast, what does it mean to say, as Marx does, that labor is embodied in a commodity except that it is a kind of ethereal, non-material substance that reposes there? While the word *labor* and the fact that Marx is analyzing the production and distribution of material goods gives the appearance that his theory is a materialist one, it is in fact a form of Idealism.

Thus, despite Marx's claim to be a materialist, in his theory human labor is a non-material substance underlying and determining the evolution of capitalism and history as a whole. In fact, for Marx, labor is the essence of the human species and history is the external reflection of the logical (dialectical) development of this essence.

Moreover, this development will result, logically and inevitably, in the emergence of human freedom, defined by Marx as classless, stateless communism. In other words, freedom is contained, as a potentiality, within human nature, and history represents the logical and inevitable working out of this immanent quality.

If one looks at Marx's conception in comparison to the philosophical system of the German Idealist, G. W. F. Hegel, one can see that Marx's theory is largely a restatement of Hegel's philosophy of history.

In Hegel's view, history represents the succession of outer forms, the phenomenology, of the journey of the human spirit or mind towards the understanding of its true nature. For Hegel, human consciousness develops through a series of contradictions. Each mode of consciousness entails contradictory ideas that lead consciousness to its next stage. This development of consciousness, particularly in the realm of philosophy, represents the journey of the human mind or spirit toward the recognition that it is part of, and a manifestation of, the mind or spirit of God. This recognition constitutes, for Hegel, human freedom.

Marx and Engels explicitly cite Hegelian philosophy as one of the three sources of their worldview, along with French socialism and British political economy. Yet, as I see it, Hegelianism is not merely one of the sources of Marxism; Marxism is best understood as a variant of the Hegelian system.

In the Afterword to the Second German Edition of *Capital*, written in 1873, Marx described his relation to Hegel in the following way (forgive the long quotation):

"My dialectic method is not only different from the Hegelian, but is its direct opposite. To Hegel, the life-process of the human brain, *i.e.*, the process of thinking, which under the name of the Idea, he even transforms into an independent subject, is the demiurgos of the real world, and the real world is only the external, phenomenal form of the Idea. With me, on the contrary, the ideal is noth-

ing else than the material world reflected by the human mind, and translated into forms of thought.

"The mystifying side of Hegelian dialectic I criticised nearly thirty years ago, at a time when it was still the fashion. But just as I was working at the first volume of Das Kapital, it was the good pleasure of the peevish, arrogant, mediocre [Epigones] who now talk large in cultured Germany, to treat Hegel in [the] same way as the brave Moses Mendelssohn in Lessing's time treated Spinoza, i.e., as a dead dog. I therefore openly avowed myself the pupil of that mighty thinker, and even here and there, in the chapter on the theory of value, coquetted with the modes of expression peculiar to him. The mystification which dialectic suffers in Hegel's hands, by no means prevents him from being the first to present its general form of working in a comprehensive and conscious manner. With him it is standing on its head. It must be turned right side up again, if you would discover the rational kernel within the mystical shell." (Capital, Vol. 1, as above, pp. 19-20.)

But whereas Marx insists that he took Hegel's dialectic and placed it *right side up*, that is, established it on a materialist basis, Marx's theory remains as Idealist as his mentor's: underneath the succession of the materialist economic forms (the modes of production) in Marx's schema, what is really occurring is the evolution of labor, conceived as an essence or substance. For all of his claims to be a materialist, Marx has merely replaced Hegel's mind or spirit with another philosophical substance, human labor: Hegel's phenomenology of mind has become Marx's phenomenology of labor. Seen this way, Marx's theory is pure philosophy and Idealist philosophy at that.

However, in *Capital* and the other *mature* works, the explicitly philosophical/Hegelian language that is so apparent in Marx's so-called *early* writings has been reduced. As a result, the *mature* works and the Marxist system as a whole have been taken and defended by Marxists as scientific.

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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 method are 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 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 them-selves 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, con-fronting 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 the economic structure of society, it also applies to other aspects of social life. In other words, the domination of labor by cap-ital, 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 byproducts 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 ver-

sion 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.)

Tome, 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 be possible, without them.

By the same token, the idea that humanity is dominated by its products implies that human beings are capable of creating anew 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 setup to do so? The entire question is integrally bound up with fundamental beliefs and value, 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, anda scientific theory. Thus, even if we accept that Marx's work is scientific in the former sense, his analysis of capitalism

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.

Byway 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 sullying of the terms "socialism" and "communism"— we should probably change "comic" to "tragic."

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 them oral 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 advocate 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

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 under-stood 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 foundation, 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 can-not 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

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 dis-appearing, 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 abase 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

Marxism area 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 predict-ed 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 pro-gram 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 is 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

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 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 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 commodity 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 wearand tear, that is, as they are worn out), a portion of their value, which itself is only determined by the amount of (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 areas on 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 other-wise prepare them for production.

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-man-aged 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 pro-gram 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

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 pre-requisites 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 capital-ism, 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

But as the last half of the twentieth century has made abundantly clear, our natural resources are not infinite. (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 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 there-fore 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 mate-rial. 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

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.

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 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 development 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. 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 factors, 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 described 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 per-son 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 pro-gram 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 pro-gram 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 noone 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 tome 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 cru-

chines, 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 result, it seems to me, it can longer be thought of sim-ply 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 attributed to labor itself, carried out as it was by slaves or serfs, the application of science and mathematics to the actual work process

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 advocating 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 our-selves 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, ma-

cial, 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 page715. 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

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/techno-logical 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 sub-stance, 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 labortime 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

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 it own terms. For one thing, as we have seen, the labor theory of value can-not 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 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,

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 ma*chine* 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 with-out 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 ofwhat 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

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 selfconsistent body of doctrine and denouncing all who disagree with it, we should be consciously, even militantly, eclectic, seeking to borrow from abroad 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

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. Tome, 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 prof-its 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

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 production—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 ogy 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 aesthetically 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'stheory of capitalism. What are we to make of it?

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 Phenomenol-

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 deter-mined, 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 cap-ital 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 it 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

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

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 bot-tom, 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

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 con-trolled 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,

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 thenature of technology. As long as capital is perceived as simply 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 sec-tors, 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

selves 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 consult-ants 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

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 in 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 contain 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 otherwords, 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 beginning, and to use it, with only slight modifications, to analyze industrial capitalism. And he did so without really discussing, let alone proving,

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, them-

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 stop-page 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

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 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 corner-stone 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 contrast 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 over-lapping 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 any-thing 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 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

ods 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 pro-capitalist 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

fect, surplus value produced in sec-tors 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 metheven more. The theory certainly 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 dis-cussed, 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 quantified. (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, usevalue 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.

- 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 everlarger 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 ef-

greater economic efficiency, he also thought that the aver-age 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 property less 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.

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