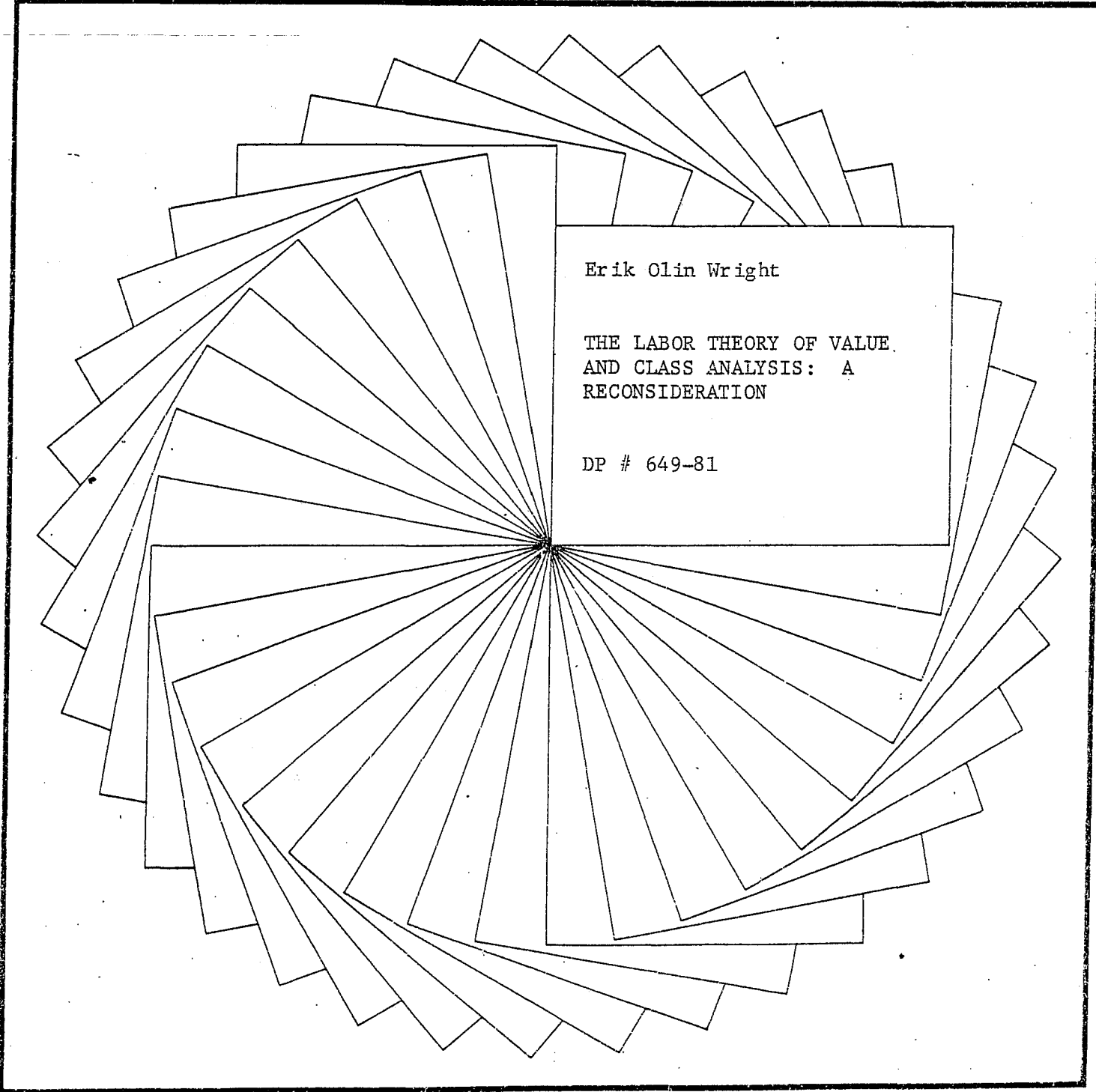




Institute for Research on Poverty

Discussion Papers



Erik Olin Wright

THE LABOR THEORY OF VALUE,
AND CLASS ANALYSIS: A
RECONSIDERATION

DP # 649-81

The Labor Theory of Value and Class Analysis: A Reconsideration

Erik Olin Wright

January 1981

I would like to thank Michael Burawoy and Herbert Gintis for their helpful comments on an earlier draft of this paper.

ABSTRACT

The labor theory of value has been at the center of debate among Marxists as well as between Marxist and non-Marxist economists. In recent years the heart of the debate among Marxists has centered on the work of Pierro Sraffa and his followers. The central point at issue is whether or not the concept of value is useful or necessary for an understanding of profits and prices in a capitalist economy. Sraffians contend that profits and prices can both be derived directly from the system of physical inputs to production and the real wage; Marxists typically argue that the concept of embodied abstract labor (value) remains important for a fully developed theory of profits. This paper sums up a number of the central points in this dispute and reassesses an earlier stance taken by the author in the debate. The fundamental conclusion is that there is probably less at stake in the debate than is usually imagined, since the Sraffian approach can easily be adapted to the Marxist concept of class and exploitation.

The Labor Theory of Value and Class Analysis

Like most Marxists, I have considered the labor theory of value to be one of the essential elements in the conceptual framework of Marxist theory. It provides an elegant and intuitively gripping way of talking about exploitation in capitalist society, and on the basis of this account of exploitation provides a way of linking such diverse concepts as class, class struggle, accumulation, crisis, and so on into an overall theory of capitalist development. Although it is true that my empirical research has never been directly based on the categories of the labor theory of value, nevertheless it always seemed that value concepts provided a very general point of departure and inspiration for the questions and direction of that research.

It was in this context that I wrote "The Value Controversy and Social Research" (1979). That paper was primarily an attempt to come to terms with the Sraffian critique (1960) of the labor theory of value as formulated in the work of Ian Steedman (1977). I attempted to establish two principal theses:

1. That if the Marxist account of the relationship between surplus value and profits was properly reconstructed, then it is possible to demonstrate the formal compatibility of the labor theory of value (hereafter, LTV) and the Sraffian account of the determination of profits.

This compatibility rested on the argument that the Marxist account specifies a process of structural limitation on profits whereas the Sraffian account specifies a process of concrete selection of profits within those limits. (This distinction will be explained below.)

2. That the LTV generated a different research agenda and provided the basis for a different theory of class relations than did the Sraffian alternative.

In particular, I argued that the LTV supported a conceptualization of classes in terms of exploitation based on the relations of production, whereas Sraffian theory more naturally supported a market-based (Weberian) notion of class; as a result, the LTV more systematically directed research towards questions of the labor process and its relationship to classes.

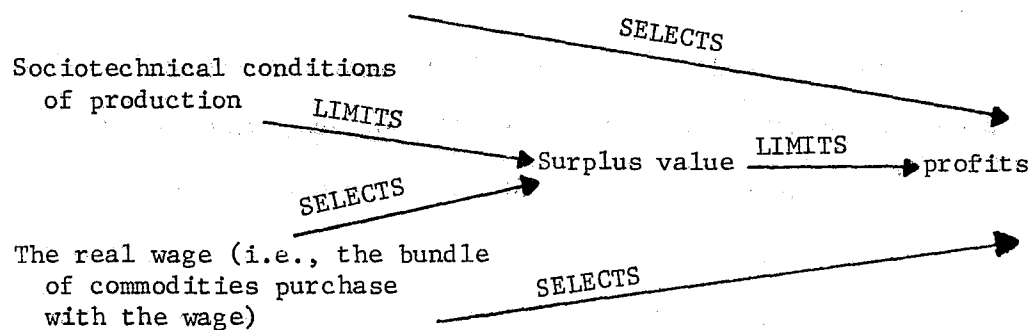
In the two years since I wrote that paper I have had many occasions to reflect on its core arguments. It now seems to me that some of those arguments were incorrectly formulated and the conclusions overstated. P. Bandyopadhyay's (1980) critique and Geoffrey Hodgson's (1980) critique thus offer a welcome opportunity to rethink and elaborate some of the positions I defended in the paper in New Left Review.

After a brief summary of the original argument, this essay will be organized around three clusters of issues raised by Bandyopadhyay and Hodgson: (1) The concept of structural limitation and its role in a theory of profit determination; (2) the problem of the distinction between formal and real determination; (3) the relationship between the LTV, the Sraffian approach to profits and prices, and class analysis. In each section I shall address criticisms raised by Bandyopadhyay and Hodgson, but I do not aim to provide a point-by-point defense of my earlier positions. Rather, I will try to use these criticisms as a point of departure for clarifying and reconsidering my earlier arguments and conclusions.

Before proceeding, one general disclaimer needs to be made. As in the original essay, this paper will not deal with any of the technical issues surrounding the problem of joint production and fixed capital. Bandyopadhyay argues that this issue cannot be "abstracted from" since it is at the heart of the general debate and bears directly on all other issues. If, after further theoretical work, debate, and clarification it turns out that Marxists do not produce a fully satisfactory reply to the criticisms associated with the joint production problem, then indeed this will have serious implications for the validity of the LTV. I cannot provide such a reply, and if a reader feels that this silence preempts the usefulness of the discussion of any other issues associated with the debate on the LTV, then there is little reason for reading further in this essay. By saying so I do not mean to dismiss these criticisms out of hand: eventually, a Marxist economist needs to produce a rigorous solution to joint production within a value framework (or, at a minimum, a rigorous critique of the Sraffian solution). But these concerns, I believe, are outside the domain of this paper.

1. THE ORIGINAL ARGUMENT: A SUMMARY

The heart of the original argument I advanced revolved around what I termed a "model of determination" of profits. This model contained four principal elements: profits, surplus value, the real wage, and the sociotechnical conditions of production (STCP). I argued that these elements were connected in the following manner:



Model of Determination of Profits

Source: Fig. 4 in "The Value Controversy and Social Research," New Left Review #116, 1979.

This model should be read in the following way: With a given quantity of surplus value generated in an economy, there is an upper and lower boundary to the quantity of profits possible in that economy. As long as that quantity of surplus value remains unchanged, then profits cannot exceed that maximum regardless of how one might change the STCP or the real wage. Changes in the STCP and real wage, however, can affect the level of profits within those limits, and thus a selection determination links these two variables directly to profits.² Surplus value is itself structurally determined by the STCP and the real wage: the STCP determine the range of possible levels of surplus value, and within those limits, the real wage has a selection effect.

This model implies that the STCP and the real wage can influence profits through two routes, one direct and one indirect. Indirectly, they influence profits through their impact on the level of surplus value produced in the economy, and thus on the limits to profits; directly they select the level of profits within those limits.

Within this model of determination, the Sraffian account of profits describes the selection-determinations of profits, while the Marxist account describes the limitation-determinations. As Sraffa has demonstrated, profits are positively determined (selected) by the STCP and the real wage. With these variables known it is possible to specify the actual level of profits (and prices) without needing any other information. The Marxist account, on the other hand, defines the range of possible profits. Under certain conditions--when the organic composition of capital is the same in all sectors of the economy--these limits collapse and the quantity of surplus value determines a unique level of profits.³

Let us now examine the criticisms of this model.

2. STRUCTURAL LIMITATION

Two quite different objections were raised against the argument about limits, one by Bandyopadhyay and one by Hodgson:

1. If surplus value is itself determined by the STCP and the real wage, then there is no meaning to the claim that it in turn imposes limits on profits. To count as a cause of profits, surplus value must have "autonomous effects," that is, effects which are not themselves "reducible" to the STCP and the real wage.

2. If an outcome--in this case profits--is completely determined positively by various selection determinations, then it is meaningless to talk about structural limitation being a "real" causal process. Real causes must always have a direct impact on the outcome. I shall discuss each of these issues in turn.

The Problem of Autonomous Effects

Bandyopadhyay (1980) argues that in order for surplus value to act as a limiting determinant of profits there must be a "determinant of

surplus value independent of the STCP and real wages. The model requires at least one missing 'structure' to be placed, say, between real wages and the STCP and establishing limits to surplus value. Without the 'missing structure' exercising independent limiting determination on surplus value, the limits on possible profits exercised by surplus values are reducible to those exercised by the STCP." (p. 15). He goes on to say that it is flatly contradictory to simultaneously claim that the STCP impose limits on the amount of surplus value and that the amount of surplus value imposes limits on profits within which the STCP have a selection effect.

The issue here is whether it is meaningful to attribute causal efficacy to elements in a system of determination which are themselves endogenously determined by other elements in the system. Bandyopadhyay insists on a strictly transitive notion of causation: If X causes Y and Y causes Z, then X causes Z and any discussion of Y is strictly "redundant" or irrelevant. There are two reasons why such a reductionist approach to causation is inadequate. First, even if Y is completely determined by X, it may be the case that once it is produced it has effects which are no longer reducible to X. Y can, in a sense, be "institutionalized" and cease to respond to subsequent changes in X. This issue is particularly important in problems of state theory, where it may well be the case that even though the structures of the state are determined by class struggle, once those structures are created and institutionalized they produce effects which persist even if the

conditions of class struggle change. The argument of institutionalization is, however, less relevant in the present case--the analysis of profit determination--than a second reason for rejecting reductionist approaches to causation: X may vary in many different ways and have many different effects in the world, but only some of these forms of variations and effects influence Y. In such a situation, even if Y is completely determined by X, variation in Y is still an essential part of the explanation for variation in Z. Not all variations in X will have effects on Z; only those variations which operate through their effects on Y will effect Z. Thus, unless there is a simple, one-to-one, isomorphic relationship between X and Y, it is not redundant to argue that Y has effects on Z even if it is in turn completely caused by X.

This second situation is precisely the situation that pertains in the relationship between the STCP, the real wage, surplus value, and profits. As I argued in the original paper, this logic of interdependence is more obvious in the simplified case in which the organic compositions of capital are equal in all sectors and thus surplus value determines a unique level of profits (i.e., the limits collapse). In such a situation there are many changes in the real wage or the STCP which have no effects on the level of surplus value. The vector of commodities in the wage basket could change in certain ways--some commodities replacing others--without the amount of surplus value changing; or the choice of technologies could change without the productivity of labor changing, and thus surplus value would remain constant. In such instances,

no change in the level of profits would occur. In the simple case, then, profits change only by virtue of the ways in which changes in the STCP and the real wage affect the level of surplus value. The fact that surplus value is totally determined by the STCP and the real wage in no way implies that it is irrelevant or redundant in a causal explanation.

The story becomes a bit more complex when we move to a situation with heterogeneous organic compositions of capital. Under such circumstances it is no longer the case that profits change only when surplus value changes: it is possible to have a change in the level of profits without there being any change whatsoever in the level of surplus value. However, the degree of possible variation in profits is still constrained by the level of surplus value, and it is in this sense that I argued surplus value imposes limits on profits.⁴ If one is willing to accept that "structural limitation" is a legitimate form of determination, then there is no contradiction at all in saying that the STCP impose limits on surplus value and surplus value imposes limits on profits, any more than in the simpler case it is contradictory to say that the STCP and real wages directly determine surplus value, which determines a unique level of profits.⁵

Structural Limitation as a Mode of Determination

The above argument presupposes that "structural limitation" is a form of real determination. This claim is challenged by Hodgson. In order for something to count as a cause, he argues, it must have a

positive impact on the outcome in question: "In general, it is difficult to envisage a causal role for structural limits if other factors, via the process of selection, are entirely sufficient to determine the outcome." Since the concept of limits plays such an important role in the strategy I adopted for linking the Marxist labor theory of value to the Sraffian analysis of profits, it is important to explain the sense in which a cause can be real and yet not determine a specific outcome.

The concept of limits may be somewhat clearer if, for the moment, we shift our attention from the problem of the determination of profits to the theory of the state. (This example was used in footnote 19 in the original paper.) If we want to explain fully the policies of a given state, we are faced with two complementary explanatory tasks. First, we need to explain the determinants of the range of possible policies open to the state--the determinants of alternatives within the agenda of state policies. Second, we need to explain the determination of the specific policy option within that range which is actually selected by the state, which concretely becomes state policy. These are quite distinct tasks, and they may involve quite different explanatory principles. Thus, pluralist interest-group theory, with its emphasis on active bargaining/negotiations between organized interest groups in the process of decision-making, may provide a reasonably accurate account of the selection-determination of specific state policies within the range of alternatives, and yet be totally unable to understand anything about the process through which the alternatives are themselves determined. The Marxist theory of the

state is, in large part, precisely a theory of such structural limits on the state, of the determinants of what the state cannot do rather than simply what it does do. The central thesis of the Marxist theory of the state in these terms is that such limits are inscribed with a class content.

The important point in the present context is that a full-fledged "explanation" of the state policy in question must involve both an account of the concrete selection-determinations and the structural limitation-determinations. But note: it is possible that a theory of the selection-determinations could effectively predict the outcome in all empirical situations. A refined pluralist theory of the formation of interest group coalitions could conceivably predict the passage or failure of legislation in parliament with perfect accuracy, and indeed explain causally why one piece or another was successful. What such a theory would be unable to explain was why the choices were the way they were. For that, a theory of limits is needed.

Analyses of limits of these sorts are an essential aspect of a Marxist methodology. Indeed, it could be argued that the investigation of structural limits constitutes one of the decisive differences between Marxist social science and most mainstream work. Marxism is not just a theory of the existing society as it is; it is also a theory of historical alternatives to capitalism. The analysis of socialism in large part revolves around decoding the limits of structural possibility in capitalism and the contradictions generated within those limits which pose the potential of a rupture of the limits themselves.

It is not enough, of course, to argue that limits on state policy (or any other outcome of interest) exist. The important theoretical problem is to specify the form and content of those limits. And this is where the difficulties begin. If limits are to form the basis of an explanation for possibilities which cannot occur (under given structural conditions) rather than simply an empirical inventory of alternatives which do not occur, then a fully developed argument about limits must specify the causal mechanisms which impose the exclusions, which substantively demarcate the boundaries.⁶

In the analysis of profits, as in the analysis of any other social process, it is thus legitimate to construct arguments about the structural limitations at work in the process. The fact that a concrete level of profits is uniquely selected (determined) by the STCP and the real wage does not imply that such determinations do not themselves take place within limits, in this case limits imposed by the level of surplus value. As long as the account of such limits includes an analysis of the actual mechanisms through which the limits are imposed, then limits can designate real causal processes.

Hodgson is thus wrong in rejecting structural limitation as a mode of determination simply because it does not positively bear on concrete outcomes. But he is correct in pointing out that the analysis of limits which I propose remains largely formal in character and that I have not presented any arguments whatsoever concerning the causal mechanisms operative in the relationship between surplus value and profits. This is a serious weakness in my analysis and undermines the

force of my critique of the Sraffian perspective as well. Let us examine this problem in more detail.

3. FORMAL VS. REAL DETERMINATIONS

In my critique of the Sraffian account of profits I argued that Steedman and others had collapsed the distinction between formal calculation and explanation. While they had established that surplus value was a redundant concept in the calculation of profits, they had not at all established that it was redundant in the causal process through which profits were actually determined. Using the example of explaining vs. predicting state policies cited above, I argued that it was entirely possible to be redundant or irrelevant in a formal mathematical process of calculation and yet play a pivotal role in a real process of causation.

Hodgson (1980) correctly points out that I have failed in my own analysis to provide any account of causation:

In reply to Wright it must first be pointed out that he, himself, has not demonstrated causality in his model. His attempt to distinguish three or four different types of cause or 'modes of determination' is impressive, but does not help. In his scheme he asserts that surplus labour limits profits, and the nature of these limits are mathematical maxima and minima. So the allegation against Sraffa can be turned against Wright himself: to point out a factor, or set of factors, which limit profits is not the same thing as to point out a cause, of any type, of the profit level or range of possible profit levels. There is no difference here. Sraffa identifies a set of factors which are sufficient to calculate the precise level of profits; Wright identifies a factor (surplus labor) which is sufficient to calculate limits on profits. They are both calculations, not, at this stage, demonstrations of cause and effect. [pp. 15-16]

What makes matters more serious is that in general Marxist defenses of the LTV have not very effectively built causal arguments for the relationship of embodied labor times (values) to

prices of production, prices, profits, and other variables in the system. The causal relationship is often proclaimed, but the arguments in support of such claims generally turn out to be rather unconvincing.

Four sorts of arguments have traditionally been advanced by Marxists to support a causal basis for the LTV:

(1) An account which argues that the only logically possible solution to the "riddle of profits" is the labor theory of value; (2) an account based on behavioral assumptions of individual rationality; (3) an account based on the necessary conditions for exchange to take place at all; (4) an account based on the functional requirements for general social reproduction. Let us briefly look at each of these in turn and assess their adequacy.⁷

1. The LTV as the logically necessary solution to the riddle of profits. Perhaps the most common causal defense of the LTV is that it is the only logically coherent way of explaining how at the end of a production cycle in which all commodities exchange at their values it is possible to end up with a profit. Martin Nicolaus (1967) poses the problem in this way:

Marx brings up the central problem of the theory of capitalism and proceeds to solve it. How is it, he asks, that at the end of the production process the capitalist has a commodity which is worth more than the elements that went into it? He pays the price of machinery, raw materials and the price of labor, yet the product is worth more than all three together. What, in other words, is the source of surplus value which the capitalist appropriates? [pp. 266-267]⁸

The solution to this riddle, Nicolaus argues, following Marx, lies in the capacity of labor power "to produce more value than is necessary to reproduce it." Thus capitalists end up with a profit because they

are able to force workers to work more hours than is embodied in the commodities which they purchase with their wages.

The LTV certainly does provide an elegant solution to this problem, but if the Sraffa vs. Marx debate has demonstrated anything, it has shown that the LTV does not provide the only logically possible solution. An account of exchange value based on the STCP and the real wage can also formally solve the riddle. This of course does not imply anything about which solution is correct, but simply that the argument for the logical necessity of the LTV to account for profits is inadequate.

2. Behavioral account of value. The behavioral argument for the labor theory of value usually makes some reference to Adam Smith's famous parable of beaver and deer hunters.⁹ In this story it is demonstrated that beaver and deer will exchange proportionately to the amount of time it takes their respective hunters to catch them, since it would be irrational for the hunters to exchange their prey in any other ratio (as long as it was possible for hunters to switch back and forth between beaver and deer hunting). If it is assumed that the actors in the system can choose what they will produce and that they have knowledge of the time it takes to produce the commodities in question, then such minimal behavioral assumptions of time-efficiency rationality make this account plausible.

The problem with this causal defense of the LTV, as has often been noted, is that the behavioral mechanisms break down as soon as we leave the simple world of directly exchanged (or bartered) commodities produced only by direct labor (i.e., the labor

embodied in the means of production is negligible). Once commodities are produced for an impersonal market and once the costs of production are not simply directly experienced labor times, but include the costs of machines, raw materials, buildings, etc., as well, then the producers themselves no longer operate with a subjective calculation of labor times. Instead, their subjective orientation is directly geared towards market prices. To be sure, the behavior of the actors may still be regulated by labor times in the way postulated by the LTV, but the mechanism can no longer be directly ascribed to the conscious calculation of labor times. Thus, the rational-behavioral causal explanation is no longer adequate.

3. Labor-values as the logically necessary condition for exchange.

Marx uses this kind of causal argument for labor time as the substance of value. In order for commodities to exchange, Marx argues, they must share a common substance. In terms of their use, commodities are radically heterogeneous. There is no basis in their use-characteristics for one apple to be the equivalent of X safety pins. The commensurability of commodities thus must lie in their sharing a common quantitative characteristic. The only plausible such common substance, Marx and others have argued, is the labor time embodied in their production (or, more rigorously: the socially necessary labor time used in their production). This argument works backwards from the empirical fact of quantitative exchange between heterogeneous commodities and argues that the only possible basis for such exchange is labor time.

This argument has been criticized in various ways. First of all, it is simply not correct that the only possible common substance of

commodities-in-exchange is labor-time expended. All commodities also embody calories of energy, human and mechanical. And all commodities embody "machine time" as well, in which human beings would constitute simply one type of machine. Even if having a common substance was a necessary condition for exchange, it is not logically required that labor be that common substance.

Secondly, as Marx himself stressed, the actual concrete labor that is expended in production is not homogeneous, but rather is qualitatively distinguished by its skills, specializations, etc. The homogenization of such concrete labor--its transformation into "abstract labor"--is thus itself a social process that occurs by virtue of the exchange process itself and its generalization throughout the society. But if concrete labor is transformed into abstract labor through such a social process--the particular process of the interconnection of production and exchange in capitalism--then it could equally well be the case that a concrete vector of inputs could be seen as transformed into an "abstract" metric through this same process. This would be the kind of story the Sraffians would tell: the transformation of the concrete physical inputs in the production of a commodity into a homogeneous metric which makes it quantitatively exchangeable (units of the standard commodity) is a process that takes place through the social process of commodity exchange.

Thirdly, it is not obvious that exchange does presuppose a common substance embodied in the production of commodities (or even imputed to the commodity through the exchange process). Imagine a fanciful society in which all commodities grew on trees which required no labor

inputs at all. And imagine that each tree was the private property of a different person and that a state apparatus existed to enforce property rights to trees. In such a society, tree-produced commodities would have regular exchange ratios based on such things as relative scarcities and demands, even though they had no costs of production. This is not to suggest that in an economy where there are costs of production, of whatever sort, such a model of exchange-ratio determination would be adequate, but merely to point out that a common "substance" based in the production of commodities is not a logical precondition for exchangeability as such.

4. Functional requirements for social reproduction. A fourth causal argument sometimes used to support the LTV revolves around an account of the functional requirements for the reproduction of society. All societies, it is argued, require a certain distribution of social labor into different tasks in order to continue to exist. A certain quantity of labor is needed in agriculture, in transportation, in the manufacture of different industrial products, and so on. Every society, therefore, must develop some sort of mechanism for adequately distributing labor to these tasks. The capitalist economy poses this problem in a peculiar way, since the production of use values in such an economy is organized anarchically (i.e., each unit of production makes its own decisions about what and how much to produce). What mechanism guarantees the functional requirement that labor be distributed in the socially necessary quantities? The answer that is offered is that the exchange of the products of labor (commodities) in ratios proportional to the labor time socially necessary

for their production provides such a mechanism. The LTV, therefore, is seen as identifying the necessary causal process which must exist if society itself is to continue to exist under conditions of capitalist production.¹⁰

This kind of functional argument seems to me to be legitimate in principle. That is, if one indeed does identify a functional requirement (i.e., a necessary condition for reproduction) of a society and establishes that a particular structure or mechanism provides a solution to that functional imperative (and no other structure or mechanism provides such a solution), then one has gone at least part of the way in "explaining" that structure and decoding its effects. I say "at least part of the way" since a full functional explanation also requires an account of the chain of causes and effects that regulate the functional relations. But functional explanations are not in principle illegitimate aspects of causal/historical explanations.¹¹

In this particular case, however, the functional explanation as a causal defense of the LTV is quite shaky. Several objections can be raised against it. First of all, it is clearly not the case that there exists "a necessary distribution of social labor" for social reproduction. Rather, there exist a multitude of socially possible distributions, all of which are compatible with social reproduction. To be sure, there are some distributions of social labor which would make social reproduction impossible--if all labor produced toothbrushes the population would starve. But the fact that radically catastrophic distributions exist does not imply at all that a unique functional distribution is needed.

Now, it is still true that a society must somehow or other prevent catastrophic allocations of labor if the society is to continue to exist. But this is a much weaker requirement than producing a specific functional distribution. All that is needed, in fact, is a mechanism which reallocates social labor when relatively dysfunctional distributions of social labor occur. All that is needed for such a mechanism to work is that there exist a nonrandom (systematic) relationship between the prices of commodities and the social labor needed for their production, not that social labor actually regulates those prices. Again, this does not demonstrate that social labor times do not so regulate prices, but simply that such regulation is not functionally required for the reproduction of society as such under capitalist conditions of production.

A second objection to the functional defense of the LTV as a causal theory is that the distribution of social labor to the various branches of production is not the only distributive-functional requirement for social reproduction. One could just as well argue that it is crucial to avoid catastrophic distributions of energy or land. Indeed, in certain historical situations it can be argued that the dysfunctional distribution of resources other than labor posed the central problems of social reproduction. The shift of land from food production to wool production in England during the transition to capitalism could be considered such an example, and possibly the dysfunctional use of energy resources for private transportation in the United States today is another. Of course, in each of these cases there is a collateral issue of the distribution of social labor to various tasks, but the

functional/dysfunctional dilemmas centered less on the labor distributions as such than on the associated physical resource distributions. This is not to argue that the distribution of social labor to various branches of production is not an issue in capitalist economies, but simply that it is not the only resource distributional issue, and thus it cannot provide a firm defense of the LTV as such.¹²

Thus, the causal defense of the LTV has not been adequately established through any of the conventional Marxist arguments: (1) the LTV is not the only logically possible causal basis for the existence of profits; (2) the behavioral causal arguments are inadequate whenever producers do not directly calculate the value of their commodities in labor times; (3) labor time as the substance of value is not a logical necessity for the very possibility of the exchange of qualitatively heterogeneous use-values; and, (4) the functional requirements of social reproduction do not necessitate that the exchange of commodities be regulated by embodied labor times. Hodgson is thus quite correct in criticizing my arguments as being just as formal as the Sraffian account.

It should be noted in this context that the Sraffians, including the Marxist-Sraffians, have also not established a systematic causal argument about the relationship between physical inputs, the real wage, and prices/profits. What they have accomplished, in a way quite parallel to the traditional Marxist analysis, is to provide a causal

argument for the social process which pushes prices back towards values when market-based deviations occur (i.e., through the movement of capital into sectors in which prices are above values).¹³ This is the causal story that Hodgson tells in his essay. But Hodgson and other Sraffians have not, as far as I am aware, provided a causal account of the mechanisms that translate the STCP into real determinants of prices and profits. In terms of the debate over the labor theory of value, then, there is little basis for a choice between positions on this particular problem, important though it may be.

To restate the issue: although it is possible to argue formally that surplus labor/value imposes limits on the range of possible profits, no satisfactory causal argument in support of this formal limit has been offered. This is an important weakness, since from a strictly formal point of view a wide range of other limits could equally well be posed. As I pointed out in the original essay--and Hodgson also stresses--if any input to production is held constant, it will formally impose a maximum and minimum on the level of profits. From a formal-mathematical point of view, all of these limits have the same status, and there would be no reason for selecting surplus labor as the "fundamental" limiting relationship.

My way out of this problem in the initial paper was to argue that unlike other possible limits, surplus labor enabled us to link the theory of profits to the general theory of class. Let us now turn to this claim.

4. THE LABOR THEORY OF VALUE AND CLASS THEORY

What I have (I hope) established thus far is the following: (1) An argument based on structural limitations in a process of determination is legitimate, even if those limits are themselves completely determined by other elements in the system; (2) Formally, surplus value can be viewed as imposing limits on the range of profits within which the STCP and the real wage constitute selection-determinants of profits; (3) No coherent causal account of the mechanisms which impose those limits has yet been developed, and thus they remain a purely formal construction.

Is there any other basis upon which one might adjudicate the debate between the defenders and critics of the LTV? In my essay I argued that the LTV had the great merit, over the available alternatives, of providing a basis for systematically linking the Marxist theory of class to the theory of accumulation. Such a linkage, I insisted, did not naturally flow from the structure of the Sraffian account, whereas it did from the Marxian account.

This argument met with two basic criticisms in the essays by Hodgson and Bandyopadhyay: (1) That the defense of the LTV on the basis of a concept of class rooted in the appropriation of surplus labor was circular, since it had to presuppose what it intended to establish; (2) The Sraffian account of profits is just as compatible with the Marxian notion of class as it is with any other class concept. In what follows I will attempt to show that the first criticism is incorrect, while the second is largely accurate and requires a modification of my initial position.

1. Class and Surplus Labor

Hodgson (1980) levels the charge of circularity in the following terms:

The argument has turned full circle. According to Wright, behind the need to focus on surplus labor is the need to examine classes; behind the examination of classes lie relations of production, and, fundamentally, these relations are essentially about which class performs and which class appropriates surplus labor. We can put the relevant question to Wright again: why is surplus labor and not surplus-anything-else selected out as the structural limitation on profits? Wright's answer, it seems, is as follows: We focus on surplus labor because it helps us understand classes and class struggle in terms of relations of production. Classes, however, are understood in terms of their relation to the extraction of surplus labor. In Wright's answer, 'surplus labor' and 'classes' are like two words in a badly designed dictionary.
[p. 13]

In order to respond to this charge it is necessary to provide an argument for defining classes in terms of the relations of appropriation of surplus labor which does not itself depend upon the LTV. If there is an independent basis for such a definition, then the argument that the LTV provides a vehicle for linking this concept of class to questions of accumulation, profit determination, etc., is not circular. Hodgson is correct that I did not explicitly provide such an independent argument in the original paper, but it is not difficult to fill this gap here.

It would take us far too long to provide a comprehensive defense and exposition of the theoretical basis for defining classes on the basis of the relations of exploitation (appropriation of surplus labor). What I will do instead is briefly sketch out the central steps in the argument so as to establish the plausibility of the claim.

The Marxist definition of classes is based on a number of more basic concepts. Five of these are particularly important in the present context: (a) labor, (b) necessary and surplus labor, (c) alienation, (d) necessary and surplus products, and (e) exploitation.

Labor. Labor is the activity of consciously transforming nature in order to produce useful things which satisfy human needs.¹⁴ Although not all human activity is "labor" in this sense, labor is unquestionably one of the most fundamental aspects of human activity.¹⁵ Furthermore, Marxists have usually argued that laboring activity is one of the fundamental ways--if not the most fundamental way--by which human beings create and transform themselves as conscious, social beings. Certainly throughout most of human history this activity has been the central preoccupation of the vast majority of people most of the time. If labor is such a basic dimension of human, social activity, then the social relations within which this activity takes place can plausibly be considered a critical aspect of the social structure of any society. This is one central reason that Marxists emphasize to such an extent the social relations of production.

Necessary and surplus labor. The activity of producing useful things can be divided into two segments: a duration within which the useful things needed for the reproduction of the people performing the activity occurs, and a duration within which other things (a surplus) are produced. The latter is particularly important, for it represents human time which is available for social development, for expanding the material basis of subsequent production. Surplus labor is thus time available for social tasks beyond the simple reproduction of the

society as it is. How that time is organized, dominated, controlled, is thus of great importance for the character of social reproduction and social change.

Alienation. When the social relations within which labor is performed are organized in such a manner that the people who perform the activity of labor lose control over some or all aspects of that activity, we say that their labor is "alienated." Alienation, in this sense, is a social relation which is variable in form and degree, ranging from the alienation of a small part of laboring activity in the case of tribute-paying organic peasant communities to the pervasive alienation of capitalist industrial production. In the latter case the worker not only loses control over surplus labor, but over the entire labor process.

Necessary and surplus products. Why should anyone ever want to control the labor of someone else? What prevents those who are so controlled from simply reasserting their own control, individually or collectively, of their labor? What keeps them from simply refusing to perform surplus labor for someone else? To answer these questions we must shift the discussion from labor to the products of labor, and in particular to the concept of surplus product.

Corresponding to the distinction between necessary and surplus labor is the distinction between necessary and surplus products: the products used to reproduce the producers and the surplus to be used for other purposes. Dominant classes do not simply control surplus labor; they appropriate surplus products. This appropriation provides the material explanation for both the subjective motivation for controlling the labor of others, and the objective foundation for the reproduction

of that control. In terms of subjective motivation, the appropriation of surplus products enables the appropriator to live without toil, and potentially to live extravagantly without toil. Throughout most of human history the only way to escape a life of toil was to become an appropriator of surplus products through one means or another.

In terms of the material basis for the reproduction of control, appropriation of surplus products gives the appropriator the ability to organize various specialized apparatuses specifically designed to ensure that control (i.e., the state and other apparatuses of domination). The surplus product thus provides material resources needed for the protection of that domination. It is almost impossible to imagine a dominant class which controlled the labor of a subordinate class without appropriating the surplus product. Such a ruling class would have a very weak subjective basis for the continuation of its rule, and it certainly would have an extremely precarious material basis for reproducing that security.

Exploitation. The Marxist concept of exploitation is designed precisely to link these various aspects of social relations, i.e., to link the reality of labor as one of the fundamental dimensions of human social activity, the social relations of domination over labor (alienation), and the material basis for the reproduction of that domination (appropriation of surplus products). When the appropriation of surplus products does not involve the alienation of labor, then exploitation has not occurred. This would be the case, for example, when a group of people raid or poach the produce of forests they did not own without appropriating the labor of any producers in the forest. Similarly, the

domination of labor which does not involve the appropriation of products is not exploitation. For example, in a prison where inmates are forced to prepare their own food under the domination of guards, but in which the guards do not appropriate the food (or any other products of prisoners), no exploitation has occurred. Domination without appropriation and appropriation without domination are not exploitation. Exploitation can thus be defined as a social relationship within which surplus labor is appropriated through the domination of labor and the appropriation of surplus products. In that labor once performed is materially embodied in the products of labor, we can speak, in shorthand, of exploitation as being the process of the appropriation of surplus labor.

We can now provide a structural definition of classes, as "social positions within the social relations of exploitation."¹⁶ Classes are thus always defined relationally, those relations are situated within the process of production, and the pivot of those production relations is the relations of exploitation. It will be seen that nowhere in this definition of class has the LTV itself been presupposed. All of the essential concepts--necessary and surplus labor, necessary and surplus products, exploitation--can be defined independently of the thesis that commodities in capitalist societies exchange in ratios regulated by embodied labor times. The concept of class is based on the general concept of surplus labor and the relations of its domination/appropriation, but it does not posit, a priori, any specific relationship to the LTV as such. This conceptualization of class may have a number of serious limitations, but it is not circular.

2. Class and the Sraffian Approach to Profits

Although the conceptualization of class outlined above does not presuppose the LTV, the two sets of concepts clearly have a systematic affinity to each other. Traditionally, the LTV has provided the answer to a specific problem of class analysis, namely: How does it happen that surplus labor is appropriated in a capitalist society in which, it appears, workers are paid the full value of their labor power when they work for capitalists? At first glance, capitalism seems precisely to be an example of a social system within which the capitalist class appropriates a surplus product without actually appropriating any surplus labor, since all labor power is paid its full equivalent in products (via the wage). In such a view, exploitation is absent from capitalism. The LTV is, in these terms, an account of the mechanism by which surplus labor is "pumped out" of workers, namely through forcing workers to perform more labor than is embodied in the commodities which they consume. On the assumption that the value of commodities is regulated by embodied labor times, this mechanism provides the basis for exploitation in capitalism. In this way the LTV links the theory of class to the theory of capital accumulation, profits, etc.

In my original article I argued that the Sraffian account of profits did not spontaneously lend itself to a concept of class rooted in production relations.¹⁷ While the formal structure of Sraffa's argument was not actually incompatible with a production-based concept of class, it much more naturally suggested a Weberian notion of classes as

positions within market relations.

It now seems to me that this initial conclusion was considerably overstated. My argument was based on the observation that the basic actors posed within the Sraffian account were the receivers and givers of the real wage. The real wage is one of the two elements in the determination of profits in the Sraffian system, and it suggests a class structure rooted in the social categories bound up with the social relations of the wage: those who purchase labor power; those who sell labor power; and perhaps those who sell skills. Such a scheme is precisely what Weber proposed in the analysis of market classes.

My critique was incorrect. The Sraffian scheme does not simply suggest market actors, but production-level actors as well. The sociotechnical conditions of production implicitly pose a structure of social relations within production itself, and a corresponding set of social positions which could form the basis of a class analysis. The physical coefficients of the STCP are actual expenditures of various inputs into production: hours of labor, tons of steel, kilowatts of electricity, etc. These do not necessarily correspond to the quantities of those inputs purchased by the owners of the means of production. Owners thus are faced with a problem: how to guarantee that when they purchase eight hours of labor time they get eight hours of work performed. That problem--the translation of labor power into labor--is precisely the problem which is at the heart of the Marxist analysis of the labor process, and as in the Marxist analysis it would draw the social analysis within the Sraffian perspective into an examination of classes rooted in production. The forms of conflict within production,

the elaboration of managerial control hierarchies, the degradation of labor, etc. are all part of the implied sociological agenda of a Sraffian theory.

While a production-level concept of class is implicit in the Sraffian framework, there remains two differences with the Marxian framework that may have significant consequences. First, it is impossible to use the labor theory of value without adopting at least a primitive production-based concept of class, whereas the Sraffian system can be employed without ever mentioning class, understood in this way. In the Sraffian framework, there is no formal difference whatsoever between the problem of transforming labor power into labor and the problem of transforming the quantity of steel purchased into the steel actually used or electricity purchased into electricity actually used. With respect to every purchased input of production there is a problem of potential waste, of a difference between the potential input represented in the market transaction and the real input represented in the production process. The structure of concepts in the Sraffian framework thus does not distinguish between the engineering problem of physical waste (including the engineering aspects of the problem of waste of labor time) and the social problem of labor control. Unless one brought to the Sraffian framework a theoretical commitment to the special importance of labor as such, there would be little impulse to draw out the implications of the Sraffian concepts for a class analysis. In the case of the LTV, on the other hand, class relations are inscribed in the core concepts themselves and thus one is insistently pushed towards a class analysis.

Secondly, if one does decide to draw out the implications of the Sraffian framework for a production-relations class analysis one would be led more naturally towards a theory of domination in production rather than exploitation.¹⁸ Although the Sraffian framework does suggest a relational, production level concept of class, it would not suggest building that concept around the problem of the appropriation of surplus labor as such. Labor and its relation to labor power do have a status in Sraffian theory, but the concept of surplus labor has, at most, a marginal status. (And as Bandyopadhyay [1980] pointed out in his analysis, when it is discussed it has little to do with the actual division between necessary and surplus labor performed by producers, but rather is a purely technical parameter derived from the technically minimum amount of labor needed to produce various commodities.) The Sraffian analysis of prices and profits and other economic issues could proceed perfectly well without ever mentioning surplus labor. The Sraffian approach to production, therefore, suggests a concept of class structure based on the ownership/nonownership of the means of production (the aspect related to the real wage) and the control/noncontrol over the performance of labor (the aspect related to STCP), but not formalized around the problem of the appropriation of surplus labor as such. Thus, while the labor theory of value implies a concept of class that links exploitation and domination, the Sraffian framework implies a concept of class more strictly based on domination of labor alone.

The question then becomes how much of a real difference this makes for a class analysis. While the emphasis on exploitation rather than

just domination certainly has significant polemical implications, it is far less clear that it has much substantive effect on the theoretical elaborations and uses of the concept of class (e.g., the theory of the state, class formation, class consciousness, etc.) or on concrete programs of research. When Marxists begin to systematically decode the social relations of production, the concern with the appropriation of surplus labor generally plays the role of justifying the concern with the labor process and the relations of domination/control within it. Certainly in my own work this is the case (Wright, 1978, 1979a, 1980). While I do discuss the problem of the mechanisms through which surplus labor is appropriated, the concrete strategy I advocate for defining the structure of class relations revolves much more on the social relations of domination/subordination within production. With some variations, the same could be said of the class analysis of Poulantzas, Therborn, Carchedi, and others. In practical terms, then, many Marxist treatments of class shift their focus from surplus labor as such to the relations of control over the performance of labor.

Indeed, we can make an even stronger statement: in those cases where Marxist treatments of class do attempt to directly derive classes from the categories of the LTV (rather than using the LTV as a point of departure for designating the relevant dimensions of social relations), they tend to fall into serious errors. This is most clearly the case in the preoccupation with the productive/unproductive labor distinction in some treatments of class. Poulantzas, for example, argues that

unproductive laborers cannot be in the working class since they are not directly exploited in the distinctively capitalist way, i.e., surplus labor is not appropriated in the form of surplus value. Such locations Poulantzas places in the "new petty bourgeoisie." The result, as has often been pointed out, is that a janitor in a bank is in a different class from a janitor in a factory, even though they may have identical conditions of work. The attempt to derive directly the criteria for classes in real capitalist societies from the categories of the LTV thus tends to fracture the relationship between class structure and class interests, and this in turn undermines any analysis of the link between class structure and problems such as class formation, class consciousness, class struggles.¹⁹

The one area of research and theory where one might expect the Marxist emphasis on exploitation to generate significant differences from a concept of class based solely on the relations of domination in production would be the problem of income determination. A Marxist account might attempt to measure the differential rates of exploitation of different categories of labor power, and such an attempt would presuppose the concepts of class based on surplus labor. This is precisely what Baudelot, Establet, and Malemort (1974) and, somewhat less directly, I attempted to do (Wright, 1979a). The theory of income inequality among wage earners would thus revolve around the account of the determinants of the different rates of exploitation of different class locations and different strata within the working class. Such a project necessarily involves, directly or indirectly, assessing the amount

of surplus labor performed by different categories of labor (i.e., the amount of labor they perform above and beyond the imputed labor-time equivalents of their wage). This kind of effort would not be made by a Sraffian.

It is less clear that the Marxist and Sraffian accounts would necessarily differ in their structural explanations of the results so obtained. They could both, at least in principle, explore such things as problems of social control within production, market barriers which protect the wages of certain strata of workers, forms of shop floor struggles, etc. In the end, therefore, the emphasis on surplus labor might not make as much difference even in the study of income inequality as it might first seem. While the idiom of the discussions would differ, the substantive causal explanations might in fact be rather similar.

It appears, then, that the substantive distance between a Marxist concept of class explicitly based on exploitation and a Sraffian-derived concept of class based on domination-in-production is not as great as I originally argued. Indeed, some theorists would argue that for all practical purposes the Sraffian-derived concept of class is equivalent to exploitation. This would seem to be the upshot of Cohen's (1979b) argument. Cohen argues that the concept of exploitation is meaningful whenever one class appropriates the surplus products of labor of another class. In capitalism workers produce all commodities. It is their labor and not the labor of capitalists which actually transforms

nature and produces use-values. That labor is exploited simply by virtue of capitalists appropriating the products of that labor, irrespective of any relationship between a notion of "embodied labor times" and prices. The magnitude of that exploitation would be defined, presumably, by how much less labor they would have to perform to produce their same standard of living without producing anything for the capitalist's own consumption and capital accumulation. This concept of exploitation requires only two elements: (a) that capitalists own the means of production (and thus have property rights in the commodities produced), and (b) that capitalists can force workers to work long and hard enough to produce more than their own subsistence (i.e., that capitalists have at least some control over the labor process).²⁰ Both of these elements would be satisfied by a Sraffian-derived production relations concept of class. The Sraffian concept would be built around the property relations which give capitalists the capacity to appropriate the surplus product and the relations of domination within production that give capitalists the capacity to achieve at least the minimum necessary control of the labor process. If one accepts Cohen's arguments about the requirements for a coherent concept of exploitation, then indeed, this is an exploitation-based concept.

It might appear from all of these arguments that there are really no significant implications of the distinction between the two concepts of class we have been discussing--a concept based on the appropriation of surplus labor, and a concept based on the appropriation of surplus products. In one important context, however, it does seem to me that a difference remains, namely in the way each concept implicitly poses the

problem of socialism.

When class domination is understood as the appropriation of surplus labor, then the destruction and transcendence of capitalism is seen as opening up the possibility of the collective, democratic control not only of resources and production, but of the general use of social time. Surplus labor is a quantity of time, of human laboring activity with a duration. In capitalism, social time is monopolized by the imperatives of accumulation. Instead of being available for the collective direction of social life, laboring time beyond what is needed for social reproduction is directed towards ever-expanding production. This is one of the senses in which capitalist relations impose real, material limits on forms of social practice: those practices which require a radically different allocation of social time are precluded by the dominance of capitalist relations. This is crucial because for socialism to be a viable social order it is necessary for people to spend considerable time engaged in collective social-political activity. While it is always problematic to make pronouncements on the institutional forms socialism in advanced industrial societies might take, one thing is certain: the average person will have to spend a much greater proportion of the week engaged in political activity (broadly understood) than in capitalist society.

This conception of socialism is clearly linked to the traditional Marxist distinction between necessary and surplus labor: necessary labor is that amount of labor-time that must be spent in the production of use-values needed for the reproduction of the producers; surplus

labor is laboring time beyond that quantity. The surplus labor performed in capitalism is thus a rough index of the time available for alternative purposes in a socialist transition, especially for the political tasks of collective control of social life and development.²¹ The usual Marxist claim that socialism becomes increasingly possible as capitalism develops is in large part a thesis about the decreasing amount of necessary labor time resulting from the development of the forces of production, and thus the increasing time potentially available for the social and political tasks of socialism.

The grounding of the concept of class in the appropriation of surplus labor thus serves to link together a number of critical concepts: class domination, the development of the forces of production and the emergence and development of historical alternatives to a given set of class relations. The power of the Marxist concept of class lies precisely in the ways these different concepts are tied together within a single conceptual field. The definition of class relations in terms of the appropriation of surplus products does not preclude the analysis of the social use and control of time, but the concept itself does not underwrite the centrality of this issue.

The net effect of these various arguments is that I must significantly modify my original conclusion about the implications of the Sraffian approach to profits for a class analysis. While it may still be the case that Sraffians in practice are less likely to talk about

class and that those who do may tend to adopt uncritically a quasi-Weberian notion of market classes, this is not logically entailed by the categories within the formal edifice of the Sraffian schema. Those categories can equally well point towards a production-level, relational concept of class. The one remaining difference of potential importance is that a Sraffian-derived concept of class would not naturally be built around the concept of surplus labor and its appropriation. This, as I have argued, may have some implications for the critical use of the concept of class in the understanding of socialism as the historical transcendence of capitalism. It probably does not, however, have pervasive consequences for the use of the concept of class for various research agendas focused on the analysis of problems within capitalist societies. Most of the research program which, I suggested, flowed more naturally from the LTV than from the Sraffian account of profits could thus probably be pursued with equal facility within a Sraffian framework.²²

5. CONCLUSION

The analysis of this paper can be summarized in several general conclusions:

1. It is methodologically legitimate to argue that surplus value imposes limits on profits within which the STCP and the real wage have selection effects. Thus, while there is not a simple, monotonic relationship between surplus value and profits, surplus value nevertheless can be viewed as constraining systematically the range of possible profits.

2. This argument about limits is a purely formal one. None of the traditional Marxist causal defenses of the LTV are very satisfactory since none of them actually explains the causal mechanisms by which value regulates/determines/limits prices.
3. The Sraffian account of profits is also purely formal in character, and thus at this point at least, there is not a coherent causal basis for adjudicating the debate.
4. The positing of surplus labor as a limiting relation, however, does enable us to link the theory of profits to the Marxist concept of class (class based on the decoding of the social relations of appropriation of surplus labor).
5. However, contrary to my earlier conclusions, the Sraffian account of profits does not lead one necessarily to adopt a Weberian, market-based concept of class. The Sraffian approach can also suggest a production-relational conceptualization of class structure.
6. Where a Sraffian-based and a Marxist-based concept of class are likely to differ is on the emphasis on surplus labor, rather than simply production. The Marxist concept of class revolves around the problem of the relations of appropriation of surplus labor; a class concept derived from the Sraffian account of profits and prices is much more likely to focus on the relations of control of labor (the labor process) and the appropriation of surplus products, but not on the appropriation of surplus labor as such.
7. It is not clear, however, that the emphasis on domination within production instead of more explicitly on exploitation makes a great deal of difference for the theoretical and empirical uses of the concept of class in the analysis of capitalist society. The concept of class derived from the Sraffian treatment of production, like the concept linked to the labor theory of value, would suggest a research program concerned with transformation of the labor process, degradation of labor, struggles over the control of technology, the mechanisms which facilitate or block the access of different social groups to different kinds of wage-labor positions, etc.

8. The one context where the differences in two concepts of class may have significant implications is in the conceptualization of socialism. At a minimum, the Marxist concept of exploitation rooted in the appropriation of surplus labor has an important critical function of directing attention straight to the structuring and control of social time.

Where does all of this leave us in the Marx vs. Sraffa debate?

First of all, the technical debate does not seem to me to be fully resolved. Steedman's argument that the LTV is redundant is not a cogent basis for rejecting the LTV as I have attempted to show in the original paper and this one as well. And the objections to reconceptualizing value theory as a theory of limits seem to me to be incorrect. If a satisfactory solution to the joint-production problem is developed, then there would be little formal basis for choosing the LTV or the Sraffian approach to profits and prices.

Secondly, the stakes in the debate are not nearly as high as I suggested in the initial essay, at least for those engaged in empirical/historical research in class analysis. Both the labor theory of value and the Sraffa system imply a conceptualization of class rooted in production, both suggest a relational notion of class, and both direct class analysis towards the investigation of the labor process and its relationship to technology, markets, struggles, etc. While differences in the implied concepts of class remain, particularly concerning the status of the appropriation of surplus labor, it is uncertain that these differences produce substantial consequences for most empirical problems of social analysis.²³

Finally, there remains, after all of this is said and done, an important didactic reason for retaining the LTV and using it as the

basis for class analysis of capitalism. The LTV brings the relational character of production and exchange into sharp relief; it establishes a compelling way of understanding exploitation and it powerfully reveals the essential structure of capitalism as a regime of domination instead of freedom. Most of this can be read into the formal structure of the Sraffian framework, but the framework itself does not insistently demand such an analysis. The Sraffian framework for the analysis of prices and profits can be used perfectly well as a purely technical apparatus for the formal calculation of economic parameters, and it certainly can be used without any imperative for understanding classes within the system of production. The LTV as developed within Marxism is unintelligible without a production-based class analysis. Thus, although in my initial essay, I overstated the ways in which the Sraffian conceptual apparatus impeded class analysis, it remains the case that it does not impel such an analysis as vigorously as the LTV.

To be sure, this is not a scientific basis for defending the LTV. Marxism, however, is not simply a scientific-theoretical program (although it is that as well). It is also a political and ideological project. The LTV has been so durable, in spite of its critics, and continues to serve as the point of departure for much Marxist thought precisely because of the ways in which it combines the agendas of Marxism as science, politics, and ideology. And until such time as its scientific-theoretical inadequacies are definitively demonstrated, the LTV can legitimately continue to fulfill this function.

Notes

¹Since I shall not treat any of the issues associated with joint production in this essay, I shall not discuss many of the criticisms raised by Bandyopadhyay. Much of his essay directly or indirectly springs from this issue since he emphasizes the "puzzles" of negative surplus value, negative prices, etc. His long discussion of the ways in which I confuse or conflate surplus labor with surplus value also is really based on the problems associated with joint production, since in the absence of joint production, surplus labor can be interpreted as the actual difference between total labor performed and necessary labor in a straightforward way.

²Although in the model these two selection-determinations are not themselves hierarchically ordered, there is nothing in the concept of selection which precludes such ordering. Thus, as Bandyopadhyay (1980) argues, the selection-determination from the real wage should be seen as operating within limits established by the selection-determination from the STCP.

³This is, of course, the condition assumed in volume I of Capital.

⁴When the organic composition of capital is homogeneous across sectors, then changes in surplus value become the necessary and sufficient condition for changes in profits; when the organic compositions are not homogenous, then changes in surplus value become necessary and sufficient conditions for changes in the limits on profits, but not in the specific

level of profits. It should be noted that in the case where the organic composition of capital is equal, changes in the STCP and real wage are still necessary conditions for changes in profits, but they are not sufficient conditions: it is entirely possible to have changes in these two variables which have no effects whatsoever on profit levels (namely, changes which leave the total surplus value constant.)

⁵Hodgson (1980) also seems to fall into the same error as Bandyopadhyay when he argues that surplus labor cannot constitute the basis for real limits on profits since it does not affect the real wage and the STCP:

"In the case of surplus labor, this structural limit can never be a cause because it never . . . affects sociotechnical conditions or the real wage. We are led to conclude that surplus labor does not effect profits either" (p. 19). This formulation by Hodgson would apply equally well to the situation in which all organic compositions of capital were equal and thus the level of surplus value directly defined a unique level of profits, since it would still be the case that surplus value would not affect the STCP or the real wage. Thus, even though in the simple case variation in surplus value is a necessary and sufficient condition for changes in the level of profits, while changes in the STCP and the real wage are not sufficient conditions (since they may vary in ways which do not affect surplus value), Hodgson would reject a treatment of surplus value as causally effective on profits.

⁶For a penetrating discussion of the problems of studying systematic "nonevents" in the theory of the state, see Offe (1974).

⁷For a contrasting set of criticisms to these same causal arguments, see Cutler *et al.* (1977).

⁸For a more extended commentary on this argument, see Wright (1978), pp. 117-118.

⁹For example, Sweezy (1943) uses the beaver and deer hunger story as a vehicle for defending the plausibility of labor-time calculations of exchange values.

¹⁰One of the most extended defenses of the LTV in terms of the functional imperatives for the distribution of social labor can be found in Rubin (1972).

¹¹For a defense of the use of functional arguments in Marxist theory, see Cohen (1979a).

¹²Indeed, in these terms, the functional requirements argument lends greater support to the Sraffian account, since the Sraffian metric of exchange can be viewed as a way of talking about effects of a weighted average of all social resources (inputs into production) on prices. The formal structure of the Sraffian approach thus links the functional requirements of a vector of resources and their social allocation to the market structure of price determination.

¹³This is the heart of the "law of value": that capital will move to sectors of production in which prices deviate above values (and thus in which the rate of profit is above the average). The law of value, however, does not require the full edifice of the labor theory of value. It merely needs a theory of equilibrium prices and the

average rate of profit, and of the response of capitalists to situations in which prices are above such equilibria. Both the LTV and the Sraffian approach to prices and profits provide such a framework.

¹⁴The importance of stressing that the concept of labor implies the conscious transformation of nature is defended in Cohen (1979).

¹⁵There is no necessity to assume that labor is the most fundamental aspect of human practice in order legitimately to root the concept of class in the social relations within which labor is performed.

¹⁶Note that this is strictly a structural definition of class. The concept of class, however, is not purely a structural concept. The global concept of class also encompasses the concept of class formation (the creation of social relations within classes and class consciousness) and class struggle. For an elaboration of this point see Wright (1978, pp. 97-108). For a more extended discussion of this definition and its difference from various alternative definitions of class, see Wright (1979, Chapter 1, "What Is Class?").

¹⁷It is important to stress that Sraffa and most theorists working in his tradition never explicitly define classes or reflect on the broader problems of class analysis. Whenever I speak of a definition of class "based on" or "derived from" the Sraffian approach I do not mean to suggest that such a definition has been actively adopted by any particular theorist in the Sraffian tradition. A notable exception to this silence on questions of the concept of class within work that is heavily informed by the Sraffian tradition is the very important

recent work by John Roemer (1980; 1981; 1982, forthcoming). Perhaps more than any other theorist, Roemer's work can be characterized as an attempted synthesis of the theoretical thrust of Marxist social-historical theory and the technical economic strategies in the Sraffian tradition. The result is a reconstruction of the analytical foundations of Marxian economic theory which in principle does not sacrifice its sociological, historical, and political logic.

¹⁸Note that this is still a concept of domination in production, and not simply domination in society. The implied concept of class in the Sraffian framework is thus not subject to the criticisms sometimes leveled against the concept of class used by Ralf Dahrendorf, Gerhard Lenski, and others, which is based on a generalized concept of authority unhinged from the process of production.

¹⁹For a more extended critique of the productive/unproductive labor distinction in the conceptualization of class relations, see Wright (1978), and Carchedi (1977).

²⁰This second condition is not explicitly included in Cohen's argument, but it does seem to me to be necessary. The capitalist ownership of the means of production (and the corresponding dispossession of the means of production from the working class) gives the capitalist class the right to appropriate the surplus product if a surplus product is produced. But, by itself, it does not guarantee that there will be a surplus product. For an actual surplus product to be produced the second condition must also exist, namely that capitalists must have

enough control over the labor process to get their workers to produce more than their own subsistence. Some notion of domination over laboring activity is needed for exploitation to exist even if appropriation is understood solely in terms of the appropriation of the surplus product.

²¹The amount of surplus labor (surplus value + unproductively performed surplus labor) in capitalism is an indicator of the minimum amount of time available for collective, social tasks in a socialist society. A certain amount of necessary labor under capitalism would probably be easily eliminated in a socialist society, since capitalism itself generates certain costs of reproduction which might be absent or reduced in socialism.

²²Two additional points on the question of the implications for research need to be made here. First, Hodgson correctly points out that until the late 1960s and early 1970s Marxists in fact paid very little attention to the labor process as a research problem. If, as I argued, a preoccupation with the labor process flowed "spontaneously" from the logic of the LTV, this would be hard to explain. In fact, while the categories of the LTV are compatible with a concern over the labor process, I considerably overstated the theoretical linkage when I suggested that they necessitated research on that issue. Secondly, it is probably not strictly the case that it is the LTV as such which suggests a concern over the labor process, but rather the theoretical commitments which underpin the Marxist concept of class (as discussed above). Those theoretical commitments encourage both the empirical

concern with the labor process and the theoretical elaborations of the labor theory of value. While, biographically, theorists concerned with the labor process may have passed through the route of the LTV, it is not so obvious that logically this route is necessary.

²³The debate over the status of the LTV probably does have important substantive implications for more narrowly economic analysis, particularly when such analysis takes a particularly abstract-formal character. But even in the case of economic problems it is less clear that the debate bears heavily on concrete empirical investigation, since relatively few empirical investigations dealing with economic problems have attempted to build directly on the categories of the labor theory of value.

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