

8 See Adam Przeworski, 'Social Democracy as a Historical Phenomenon', *New Left Review*, no. 122, 1980. Przeworski and John Sprague's forthcoming study of European voting patterns during the last century underlines the dilemmas of socialist electoral strategy as shaped by a changing class structure.

9. See, for example, Cornelius Castoriadis, 'On the History of the Workers' Movement', *Telos*, no. 30, Winter 1976-77, pp. 3-42.

10. Teodor Shanin's 'Marx and the Peasant Commune' (*History Workshop*, no. 12, Autumn 1981, pp. 108-28) is a sign of the times. For some time Marxists have been interested in peasant revolts, but only now do we have a serious attempt to construct a Marx who actually anticipated the radical potential of the peasantry. In the 1960s and 1970s debates raged over the existence of an 'epistemological break' between a Hegelian Marx and a scientific Marx. In the 1980s debates have begun to rage over Marx's evaluation and reevaluation of historical change and its agents.

11. Skocpol (*States and Social Revolution*, Cambridge 1979) deliberately excludes the working class from a significant role in the Russian revolution because it was not central to the Chinese and French revolutions. The argument rests on the tenuous assumption that all three revolutions were essentially the same and therefore had to be caused by the same forces.

12. The most celebrated work here is E.P. Thompson's *The Making of the English Working Class* (Harmondsworth 1968), but there is now a burgeoning literature on craft workers' resistance to the encroachment of capitalism (see Chapter 2 of this book).

13. The best example of this tendency is Harry Braverman's *Labour and Monopoly Capital* (New York 1974). Thus, the contradictory perspectives of the working class as maker of history and victim of history can be cast in evolutionary terms in which early radicalism gives way to later quiescence. Throughout this book, but most explicitly in Chapter Two, I suggest the inadequacy of such a resolution, substituting one that underlines the centrality of factory regime in shaping the interests and capacities of the working class.

The Labour Process in Capitalist Society

It is one of the interesting paradoxes in the history of Marxism that Marx's analysis of the labour process, as formulated in *Capital*, had until recently remained largely unchallenged and undeveloped. Whereas there had been debates over the reproduction schema in Volume 2 of *Capital* and over the falling rate of profit in Volume 3, Marxists had taken Volume 1 for granted. Harry Braverman, whose *Labour and Monopoly Capital* reflected and then instigated a resurgence of interest in Marxist theories of the labour process, wrote:

The extraordinary fact is that Marxists have added little to his body of work in this respect. Neither the changes in productive processes throughout this century of capitalism and monopoly capitalism, nor the changes in the occupational structure of the working population have been subjected to any comprehensive Marxist analysis since Marx's death. . . . The answer probably begins with the extraordinary thoroughness and prescience with which Marx performed his task.¹

Indeed, *Labour and Monopoly Capital* is a monument to the prophetic power of Marx's analysis.

But we should beware of Braverman's humility before Marx. We should not be deceived by his easy flow between the emergent features of monopoly capitalism and the pages of *Capital*. Indeed, Braverman goes beyond Marx in constructing a theory of social structure from the analysis of the capitalist labour process. His argument is elegant, simple, all-embracing, and above all convincing. He begins with the distinctive feature of the capitalist mode of production: that the direct producers sell to the capitalist neither themselves nor labour services but their labour power — their capacity to labour. The definitive problem of the capitalist labour process is therefore the translation of labour power into labour. This is the managerial problem of control that Braverman reduces to the alienation of the labour process from the labourer — that is, to the separation of manual and mental

labour, or more precisely, using his terms, the separation of conception and execution. Around this idea Braverman weaves the tendencies of both the capitalist labour process and the capitalist social structure.

Within the labour process itself the division of labour brought about by scientific management, and in particular Taylorism, epitomizes this separation of conception and execution. It is a means through which skill and knowledge are expropriated from the direct producer and placed in the hands of management. The introduction of more advanced forms of machinery, whereby science is harnessed to the labour process, both compounds and complements Taylorism in the development of the separation of conception and execution. Thus, the tendencies of the labour process under the guiding principle of managerial control are toward the deskilling and fragmentation of work on one hand and the creation of an apparatus of 'conception' on the other. Following his own logic, Braverman proceeds to show that conception — the planning, coordination and control of work — is itself a labour process and is therefore subject to the same separation of conception and execution. Hence, along with the few managers and technical personnel created by the development of the intervention of science, there also appear armies of clerical workers. This is one strand of his argument — the historical development of the capitalist labour process. He combines this with a second strand concerning the expansion of capital into ever new arenas of life. Thus, Braverman documents the movement of capital into service industries, transforming domestic work, for example, into an arena of capitalist relations. The proliferation of such service industries is, of course, subject to the same process of separation of conception and execution. As capital conquers one sphere after another and as it is itself transformed within the spheres it has already conquered, old jobs are destroyed and new jobs created. The movement of labour, and thus the shaping and reshaping of the occupational structure, follow the laws of capital.

Braverman's analysis is exclusively from the side of the object. This is no oversight; it is quite deliberate. Braverman repeatedly stresses the mechanisms through which subjectivity is destroyed or rendered ineffectual and through which individuals lose their individuality. In this he follows a powerful tradition within Marxism, most clearly represented by Georg Lukács in *History and Class Consciousness*.² Like Lukács, Braverman presents capitalism as a process of becoming, of realizing its own inner essence, of moving according to its immanent tendencies, of encompassing the totality, of subordinating all to itself,

and of destroying all resistance. Unlike Lukács, however, Braverman does not call upon the miraculous appearance of a messianic subject — the revolutionary proletariat — which, through the agency of the party, would conquer history and turn capitalism on its head. Whereas at the time Lukács was writing such a vision could present itself as reality, today in the United States it would present itself as a utopia. Not surprisingly, there are utopian elements in Braverman's analysis, although they do not appear in the guise of a party. Despite disclaimers, Braverman offers traces of a romantic utopianism.

It is clear, however, that a critique of Braverman cannot simply replace a one-sided view that emphasizes the objective aspects of capitalism with an equally one-sided view emphasizing the subjective aspects. To the contrary, Braverman pushes the subject-object framework as far as it will go and thereby lays bare its limitations. Thus, within the Lukács tradition, *Labour and Monopoly Capital* is a memorable study. It is the work of a lifetime — the result of sifting and resifting, reading and rereading, interpreting and reinterpreting Marx through a continuous dialogue with the concrete world. Not for nothing have we had to wait over a century for a comprehensive reassessment of Marx's theory of the labour process. Its place in the Marxist tradition is secure. If I do not continually harp on Braverman's remarkable achievement, it is because I am trying to come to terms with it and, at the same time, to draw upon alternative Marxisms to go beyond it.

1. Introduction

In *Capital* Marx accomplishes the rare feat of combining an evaluation and an analysis of the operation of the capitalist mode of production. Critique and science are here two moments of the same study. They develop together and in harmony. In *Labour and Monopoly Capital*, the two moments have come unstuck. They interfere with and impede each other's development. In this chapter I try to show how critique can set limits on the penetration of the working of capitalism.³

In section 2, I will argue that the essence of capitalist control can be understood only through comparison with a non-capitalist mode of production. By contrast, Braverman takes his standpoint from within capitalism, alongside the craft worker — the embodiment of the unity of conception and execution. While capitalism continually creates new skills and new craft workers,⁴ it also systematically destroys them by taking, in Bill Haywood's words, 'managers' brains' away from 'under the workman's cap'.⁵

The separation of hand and brain is the most decisive single step in the division of labour taken by the capitalist mode of production. It is inherent in that mode of production from its beginnings, and it develops, under capitalist management, throughout the history of capitalism, but it is only during the past century that the scale of production, the resources made available to the modern corporation by the rapid accumulation of capital, and the conceptual apparatus and trained personnel have become available to institutionalize this separation in a systematic and formal fashion.⁶

However, it is not altogether clear why the separation of mental and manual labour is a principle inherent in the capitalist mode of production rather than one that cuts across all class-divided modes of production. Braverman does not penetrate the specific form of the separation of conception and execution to reach the essence of the capitalist labour process. He mystifies his analysis with unexamined assumptions concerning 'antagonistic social relations' and 'control', without revealing the specific meanings they assume under the capitalist mode of production. So long as he insists on focusing on variations within capitalism, Braverman is prevented from arriving at the structure of the capitalist labour process and thus of its relationship to the separation of conception and execution.

What 'external' perspectives can one adopt? Braverman, it is true, develops some of his notions by reference to the animal world.⁷ For animals the separation of conception and execution is impossible. For humans, because they engage in purposive behaviour, the separation is always possible. But this sheds no light on the specificity of that separation under capitalism. An alternative point of departure is some notion of a socialism, but since this is deduced for Braverman by inverting a picture of capitalism taken from within, it tells us nothing new about the capitalist labour process.⁸ Instead, I suggest taking feudalism as a point of departure.

In section 3, I will examine Braverman's theoretical framework. 'This is a book about the working class as a class *in itself*, not a class *for itself* . . . (There is a) self-imposed limitation to the "objective" content of class and the omission of the "subjective". . . .'⁹ I try to show that an understanding of capitalist control cannot, almost by definition, be reached without due attention to the 'subjective' components of work. However, the problem lies not only in the dislocation of the 'subjective' from the 'objective' but also in the very distinction itself.¹⁰ The economic 'base' cannot be considered as defining certain 'objective' conditions — 'class in itself' — which are then activated by the 'super-structure' — the so-called subjective aspects — to form or not to form a 'class for itself'. Rather the productive process must itself be

seen as an inseparable combination of its economic, political and ideological aspects.

The 'class in itself/class for itself' scheme allows Braverman to ignore all those day-to-day responses that yield the secrets of how and why workers acquiesce in 'building for themselves more "modern", more "scientific", more dehumanized prisons of labour' and of workers' 'willingness to tolerate the continuance of an arrangement so obviously destructive of the well-being and happiness of human beings'.¹¹ Ironically, Braverman dismisses the very studies that might illuminate the nature of capitalist control and consent as the preserve of the 'conventional stream of social science' and assimilates them to 'the petty manipulations of personnel departments'.¹² While industrial sociology may conceal much, may offer at best a limited critique, and may present what exists as necessary and immutable, it nonetheless reveals the concrete forms through which labour is enlisted in the pursuit of profit.

Just as reliance on the 'objective' aspects of the labour process prevents Braverman from understanding the day-to-day impact of particular forms of 'control', and specifically Taylorism, so the same one-sided perspective leads him to compound Taylorism as ideology and Taylorism as practice. The same focus also precludes an explanation of the historical tendencies and variations in the labour process. Rather, Braverman assimilates cause and consequence in elevating a description of the tendency toward the separation of conception and execution into its explanation. In the process, he makes all sorts of assumptions about the interests of capitalists and managers, about their consciousness, and about their capacity to impose their interests on subordinate classes.

In section 4, I suggest that Braverman's conception of socialism is limited by his critique of capitalism. His exclusive focus on the relationship between conception and execution frequently leads him to attribute to machinery and technology a neutrality they may not possess and to turn romantic notions of early capitalism into restricted visions of a socialist future.

In section 5, I turn to the way Braverman links the labour process to the rest of society. Here, as in section 3, I note his collapsing of cause and consequence as the irresistible forces of degradation and commodification penetrate the furthest corners of social life. This is the essence of his critique: to emphasize the domination of capital over society, rather than the problematic character of the conditions presupposed by that domination.

Finally, in section 6, I argue that Braverman's analysis is a product

of a specific time and place. His work expresses the apparently untrammelled dominance of capital in the United States — its capacity to absorb or repel alternatives, to incorporate change and criticism, and when necessary to eliminate resistance. Mistaking appearances for essence stems not only from Braverman's expressive totality and concomitant teleological view of history but also from the absence of any comparative framework that might offer some notion of alternative patterns of development. I draw upon the work of Gramsci as an example of a comparative approach that examines the limits of the possible. I then speculate on the causes of variations in the labour process, both within and between capitalist societies. In other words, it is because *Labour and Monopoly Capital* is so closely tied to the social and historical context in which it was produced that Braverman clings to critique all the more desperately.

2. Capitalist Control: Essence and Appearance

If there is a single concept that has served to generate ahistorical accounts of organizations and to mystify their operation, it is the concept of control. By virtue of its use as a general concept — and by incorporating an imprecision as to whom or what is being controlled, for what ends, how, and by whom — modern social science has successfully obfuscated the working of capitalism.¹³ Despite his important efforts to specify its meaning, Braverman's use of the term is not without its flaws and unstated assumptions. He too fails to come to terms with the specificity of capitalist control over the labour process — that is, the manner in which the capacity to labour is translated into the expenditure of labour, or the translation of labour power into labour.

Control and Interests

Braverman derives his notion of control from the destruction of crafts. The 'degradation of work' through expropriation of skill and knowledge refers to what changes rather than to what is constant under capitalism, to the varieties of organization of work rather than to the underlying structure that identifies the labour process as a labour process in capitalist society. One can approach the latter only by comparing the capitalist mode of production to a non-capitalist mode of production.

But first let us specify the problem: why is control necessary at all? Braverman argues as follows. In the early period of capitalism, when

putting out and subcontracting still prevailed, the entrepreneur's task was to eliminate uncertainty over the amount and method of work. Labourers were therefore brought together under a single roof and paid a daily wage for their 'labour power'. But in reducing one form of uncertainty a new form was created: the uncertainty in the realization of labour power in the form of labour. This new problem inaugurated capitalist management.

When he (the capitalist) buys labour time, the outcome is far from being either so certain or so definite that it can be reckoned in this way, with precision and in advance. This is merely an expression of the fact that the portion of his capital expended on labour power is the 'variable' portion, which undergoes an increase in the process of production; for him the question is how great that increase will be. It thus becomes essential for the capitalist that control over the labour process pass from the hands of the worker into his own. This transition presents itself in history as the progressive alienation of the process of production from the worker; to the capitalist, it presents itself as the problem of management.¹⁴

The task of management has been to reduce or eliminate the uncertainty in the expenditure of labour while at the same time ensuring the production of profit. But why the need to reduce uncertainty? Why can labour not be left to its own devices? Why must it be reduced to a machine? In short, why is control necessary? The answer, of course, lies in the presumption that capitalist social relations are 'antagonistic'.¹⁵ But what are these antagonistic relations? More specifically, what is antagonistic about them? And what is specifically capitalist? Braverman does not provide complete answers to these questions.

Let us begin with the issue of the opposition of the objective interests of labour and capital. 'The labour process has become the responsibility of the capitalist. In this setting of antagonistic relations of production, the problem of realizing the "full usefulness" of the labour power he has bought becomes exacerbated by the opposing interests of those for whose purposes the labour process is carried on, and those who, on the other side, carry it on.'¹⁶

But why the opposed interests? There are many passages in the works of Marx where he declares or presumes a fundamental opposition of interests between labour and capital. Moreover, Marx implies that this antagonism will become increasingly transparent over time. The material basis for the opposition of interests lies in the increase of unpaid labour relative to paid labour, of surplus labour to necessary labour. This is a tendency inscribed in the capitalist mode of production. In short, the economic relationship of capital to labour is zero-

sum — the gains of capital are always at the expense of labour.

But how does labour come to recognize that its interests are opposed to those of capital? What determines the short-term, everyday interests, and how shall these turn into labour's long-term, imputed or fundamental, interests? Marx's answer can be found in his political texts, most clearly in *Class Struggles in France*. The proletariat will come to understand its opposition to capital, will recognize its historic role only through class struggle. Thus, the bloody defeat that the proletariat suffered in June 1848 was necessary to the evolution of a class consciousness, to the movement from a 'class in itself to a class for itself'.¹⁷ In addition, Marx argues that the maturity of the working class hinges on the development of the forces of production that is coterminous with their homogenization and socialization, preparing the ground for revolutionary combination against capital.¹⁸

History suggests, however, that the outcome of class struggle mollifies the opposition of interests and frequently coordinates the interests of labour and capital. Thus, universal suffrage, the object of considerable struggle in Europe, turned into a means of incorporating the working class into the capitalist order and became a fetter on proletarian consciousness. How all this has happened is not the object of the present discussion. Suffice it to say that whereas in terms of exchange value, relations between capital and labour may be zero-sum, in terms of use value those relations are non-zero-sum. That is, capital has been able to extend concessions to labour without jeopardizing its own position. Marx did not pay much attention to this possibility, although he did sometimes recognize it: 'To say that the worker has an interest in the rapid growth of capital is only to say that the more rapidly the worker increases the wealth of others, the richer will be the crumbs that fall to him, the greater is the number of workers that can be employed and called into existence, the more can the mass of slaves dependent on capital be increased.'¹⁹ Thus, even if the 'value' of wages — that is, the amount of labour time socially necessary for the reproduction of labour power — falls, the commodities that the wage can fetch can increase owing to productivity advances. And it is not in exchange-value terms that workers understand their interests and act in the world but in terms of the actual commodities they purchase with their wage. Through the concessions and higher living standards associated with an advanced capitalist economy, the interests of capital and labour are concretely coordinated.²⁰

The crucial issue is that the interests that organize the daily life of workers are not given irrevocably; they cannot be imputed; they are

produced and reproduced in particular ways. To assume, without further specification, that the interests of capital and labour are opposed leads to serious misunderstandings of the nature of capitalist control, if only because it provides an excuse to ignore the ideological terrain on which interests are organized.²¹ Rather, we must begin to develop a theory of interests. We must investigate the conditions under which the interests of labour and capital actually become antagonistic. In short, we must go beyond Marx.

So, if we cannot take interests as given, what becomes of Braverman's notion of control? Why is control so necessary? What is its function? We can begin to answer these questions only by tracing the specificity of capitalist control from the perspective of a non-capitalist mode of production, in our case, feudalism.

From Feudalism to Capitalism

The portrait of feudalism that I am about to offer does not correspond to any historically concrete feudal social formation. Rather, it represents the feudal mode of production as a pure form, something that never existed in reality. The purpose here, as it was for Marx, is to use the notion of the feudal mode of production not to help us understand feudalism but to illuminate the essence of the capitalist mode of production.

A mode of production can be defined generally as the social relations into which men and women enter as they transform nature.²² Each mode of production is made up of a combination of two sets of social relations, or as Balibar calls it a 'double connection'.²³ First, there are the social relations of 'men and women to nature': the relations of productive activity and of the labour process, sometimes known as the technical division of labour. I shall refer to these as the *relations in production*.²⁴ Second, there are the social relations of 'men and women to one another': the relations of distribution and consumption of the product of labour and the relations through which surplus is pumped out of the direct producers, sometimes known as the social division of labour. I shall refer to these as the *relations of production*.

At the most general level, and as a first approximation, we can regard the feudal relations of production as defined by particular mechanisms designed to expropriate surplus through rent, while the feudal relations in production are characterized by the ability of direct producers to set the instruments of production in motion autonomously. We can discover essentially three types of rent: labour rent,

rent in kind, and money rent. We shall confine ourselves to the first, which Banaji analyses as the fully developed or crystallized form of feudalism.²⁵ The essential cycle of production is as follows. For a portion of the work-week, say four days, serfs work on land that they 'possess' or hold at the will of the lord; during the remaining two days they work on the land of the lord, the lord's demesne. While the former labour is necessary to meet the subsistence needs of the serf's family, the latter constitutes surplus labour in the form of rent, which is appropriated by the lord.

Five features of this 'pure' form of feudalism should be noted. First, necessary and surplus labour are separated in both time and space. Labourers work for themselves on their own land and then for the lord in a different area. Second, serfs are in immediate possession of the means of their subsistence as they engage in production. They grow and consume their own crops. Third, serfs possess and set in motion the instruments of production independently of the lord.²⁶ Fourth, at the same time, the lord actually organizes the labour process, particularly on his own land, through the specification of labour services in the manorial courts. Here, too, we find the separation of conception and execution. Struggles over the amount of surplus to be produced occur through the political-legal apparatus of the estate. Finally, serfs find themselves working for the lord because ultimately they can be compelled to carry out customary services. This is presented in the realm of ideology as fair exchange for the right to hold land and the right to military protection.

In summary, under the feudal mode of production surplus is transparent. Furthermore, it is produced neither automatically nor simultaneously within the cycle of subsistence production. It is produced outside this cycle. As a result, the lord has to appropriate surplus through extra-economic means. This has many implications for the nature of feudal law, politics, religion and so forth, since it is in these realms that we discover the mechanisms for ensuring the continuous appropriation of surplus. However, the contrast with the capitalist mode of appropriation is what is important here. In capitalism, workers are dispossessed of access to their own means of production. For reasons of survival they have no alternative but to sell their labour power to a capitalist, in return for a wage with which they can then purchase the means of their existence. Whereas it appears that workers are paid for the entire time they work for the capitalist, say eight hours each day, in reality their wage is equivalent to only a portion of the working day, say five hours. These five hours constitute necessary labour time (necessary for the reproduction of labour

power), while the remaining three hours are appropriated by the capitalist as unpaid or surplus labour time and later realized as profit through the sale of commodities on the market.

Five points should again be noted. First, there is no separation either in time or in space between necessary and surplus labour time. This distinction, to which Marx draws our attention, does not appear as such in the organization of production. It is invisible (and possibly implausible) to both worker and capitalist. We experience only its effects — the production of surplus value and therefore of the capitalist on the one hand, and the production of wage-equivalent and therefore of the labourer on the other. Second, labourers are never in possession of the means of subsistence during the production process. One cannot live by pins alone; there is no possibility that workers will run off with the means of their existence. The only way a worker can gain access to the means of subsistence is by working the full eight hours and receiving a wage equivalent to, say, five hours. In other words, workers are dependent on selling their labour power in a market, just as capitalists, if they are to remain capitalists, are dependent on selling their products in a market. Third, workers cannot set the means of production into motion by themselves. They are subordinated to, and largely controlled by, the labour process. On the other hand, and this is the fourth point, the amount of surplus or, more accurately, the tasks they have to accomplish are not specified as they are under feudalism. Rather than political struggles in the manorial courts, we now find 'economic' struggles over the control of work or, as some have referred to it, over the 'effort bargain' either on the shopfloor or in negotiations between management and labour.²⁷ Finally, workers are compelled to go to work not so much through the threat or activation of extra-economic mechanisms but through the very need for survival. The wage offers means of existence, and the worker's appearance at the factory gates has to be renewed each day if he or she is to survive.

In summary, we find that under the capitalist mode of production the very act of production not only contributes to the making of a commodity (a use value), but also produces on one side the capitalist (surplus value) and on the other side the labourer (necessary value). The transformation of nature as defined by the labour process — that is, by the relations in production — reproduces the relations of production and at the same time conceals the essence of those relations. By contrast, feudal relations in production neither reproduce nor conceal the relations of production between lord and serf. To the contrary, the relations in production are such as to throw into relief

the exploitative relationship between lord and serf and to necessitate the intervention of some extra-economic element to ensure the reproduction of that relationship. On the other hand, just because surplus is transparent and well specified, the lord always knows when he has obtained it. Under capitalism, because of the absence of a separation, either temporal or spatial, between necessary and surplus labour time, the capitalist is never sure whether he has indeed recovered a surplus. The expenditure of labour on the shopfloor occurs between the time when a capitalist makes a wage commitment and the time when he realizes the value of the product in the market. Whereas the lord knows he has pumped surplus out of serfs, because for two days each week he can see them working in his fields, the capitalist is cast in an ambiguous position since he cannot see surplus or its absence until it is too late. Surplus is obscured in the process of production not only for the worker but also for the capitalist. The dilemma of capitalist control is thus to secure surplus value while at the same time keeping it hidden.²⁸

Obscuring and Securing Surplus Value

What can the Marxist literature tell us about the specific mechanisms of obscuring and securing surplus value? Let us begin with the obscuring of surplus. As we have already discussed, the wage-labour contract mystifies the existence of unpaid labour, since wages are paid as if for the entire working day. In Volume 3 of *Capital* Marx writes about two other sources of the mystification of the origins of profit. On one hand he shows how profit appears to be the return to constant capital, to the investment in machinery. On the other hand, he demonstrates how the market also appears to be the source of profit, how the realization of profit obscures its origin in unpaid labour.

But how does the organization of the labour process itself, the relations in production, conceal the existence of surplus, the relations of production? First, the relations in production are dislocated from the relations of production. The reproduction of labour power and of capital are the external effects of the expenditure of labour. The one takes place within and the other outside the factory. At the point of production workers interact only with one another and with managers who appear, like themselves, to sell their labour power for an income (although they may in fact appropriate a share of the surplus value). Capitalists are generally invisible. This separation of relations in and of production, of course, corresponds directly to the institutional separation of 'ownership and control'.²⁹

Second, rather than the emergence of a collective consciousness due to interdependence and homogenization of labour, we discover that the relations in production have the effect of fragmenting and individuating life on the factory floor. As Lukács notes: 'In this respect, too, mechanization makes of them isolated abstract atoms whose work no longer brings them together directly and organically; it becomes mediated to an increasing extent exclusively by the abstract laws of the mechanism which imprisons them.'³⁰ A number of studies have documented the creation of skill hierarchies that pit workers against one another,³¹ or shown how rules can be used to diffuse conflict.³² Moreover, as Braverman notes, workers can no longer grasp the totality; they can no longer see beyond their immediate fractionalized job, let alone beyond the labour process to the relations of production. 'A necessary consequence of the separation of conception and execution is that the labour process is now divided between separate sites and separate bodies of workers. . . . The physical processes of production are now carried out more or less blindly, not only by the workers who perform them, but often by the lower ranks of supervisory employees as well. The production units operate like a hand, watched, corrected, and controlled by a distant brain.'³³

Finally, there are those who argue that bourgeois ideology penetrates the consciousness of the proletariat and obstructs its capacity to recognize itself as a class opposed to capital. Thus, Lukács talks of the 'insidious effects of bourgeois ideology on the thought of the proletariat' and of the 'devastating and degrading effects of the capitalist system upon its (the proletariat's) class consciousness'.³⁴ A similar view is to be found in Lenin: 'But why, the reader will ask, does the spontaneous movement, the movement along the line of least resistance, lead to the domination of bourgeois ideology? For the simple reason that bourgeois ideology is far older in origin than socialist ideology, that it is more fully developed, and that it has at its disposal unmeasurably more means of dissemination. . . . The working class spontaneously gravitates towards socialism; nevertheless, most widespread (and continuously and diversely revived) bourgeois ideology spontaneously imposes itself upon the working class to a still greater degree.'³⁵

This is not very helpful, but it is the best Lenin has to offer. Each class has its own ideology (given spontaneously), and these ideologies then engage in a battle with one another. As in all the writings to which we have referred, there is no attempt to come to terms with the production of a specific type of consciousness or ideology at the point

of production — one whose effect is to obscure surplus value and relations of production.

What about the securing of surplus? Following Marx, Marxist theory has taken the existence of surplus for granted and therefore focused on its quantity.³⁶ As Braverman writes: 'It is known that human labour is able to produce more than it consumes, and this capacity for "surplus labour" is sometimes treated as a special mystical endowment of humanity or of its labour. In reality it is nothing of the sort, but is merely a prolongation of working time beyond the point where labour has reproduced itself, or in other words brought into being its own means of subsistence or their equivalent.'³⁷

This is a transhistorical generalization that may, in fact, not hold under all circumstances. But, what is more important, it is one thing to speak of a potential to produce more than one consumes; it is quite another matter to realize that potential.³⁸ And that precisely is the problem of 'control', which faces all dominant classes and assumes different forms according to the mode of production. Under feudalism the potential is realized through the intervention of an extra-economic element. Under capitalism not only is this possibility ruled out, but in addition surplus itself is concealed.

Thus, Braverman is mistaken in applying the logic of 'feudal control' to the capitalist labour process. Commenting on Taylor's notion of a 'fair day's work', Braverman writes: 'Why a "fair day's work" should be defined as physiological maximum is never made clear. In attempting to give concrete meaning to the abstraction "fairness", it would make just as much if not more sense to express a fair day's work as the amount of labour necessary to add to the product a value equal to the worker's pay; under such conditions, of course, profit would be impossible.'³⁹

But workers do not first produce for themselves and then for the capitalist, as occurs between feudal peasants and the lord. Necessary and surplus labour time are indistinguishable at the level of experience.

The notion of a fair day's work as equivalent to a wage does not make sense for another reason — namely, the individual labourer's dependence on capital. Proletarian existence rests not merely on today's wage but also on tomorrow's and the next day's. Unlike feudal serfs, who produce and consume their own surplus independently of the lord, capitalist labourers depend on the production of profit. Their future interests, as organized under the capitalist mode of production, lie in the production of surplus value.⁴⁰ Here rests the material basis for capitalist hegemony, according to which the in-

terests of capital are presented as the interests, both present and future, of all.⁴¹

Let me summarize the argument so far. In adopting a standpoint within capitalism Braverman is unable to uncover the essence of the capitalist labour process. Instead he assimilates the separation of conception and execution to the fundamental structure of capitalist control. In so doing he treats what is but a single expression of capitalist control as its essence. By taking an alternative mode of production as point of departure, I have tried to construct the features common to all forms of the capitalist labour process. I have defined these in terms of what has to be accomplished — namely, the obscuring and securing of surplus value. In the section that follows I propose to show that 'obscuring and securing' surplus value can be understood only with reference to the ideological and political as well as 'economic' realms of work. In other words, Braverman's restricted attention to the 'objective' elements of work does not allow us to understand the nature of control — for, by definition, control involves what Braverman would refer to as 'subjective' aspects of work and what I will refer to as political and ideological processes. Only when these processes are understood can we proceed to examine the variety of forms of the capitalist labour process, the transition from one to another, and the relationship between the separation of conception and execution and the obscuring and securing of surplus.

3. Class: In Itself or For Itself?

In this section I will begin to establish a framework in which we can pose the problem of capitalist control, that is, of securing and obscuring surplus. But first it will be necessary to show why Braverman's concepts, and not merely the way he uses them, are inadequate to the task.

The Economic, Political and Ideological Moments of Work

Braverman's 'critique' is directed to the degradation of work, to the factory as a prison. By portraying workers as 'general purpose machines' and 'abstract labour', and by asserting that the scientific-technical revolution removes the 'subjective factor of the labour process . . . to a place among its inanimate objective factors',⁴² Braverman is clinging to the critical moment in *Capital*: 'Labour in the form of standardized motion patterns is labour used as an interchangeable part, and in this form comes ever closer to corresponding, in life, to

the abstraction employed by Marx in analysis of the capitalist mode of production.⁴³ In the resolute retention of critique, therefore, he refuses to countenance the human side of work — the adaptation to degradation. For such are the concerns of the 'conventional stream of social science'.⁴⁴ Industrial sociology, claims Braverman, rather than condemning deprivation inherent in industrial work, seeks to understand and, if possible, to assist workers in coping with that deprivation — a deprivation portrayed as inevitable and more or less necessary.⁴⁵ 'This leaves to sociology the function, which it shares with personnel administration, of assaying not the nature of the work but the degree of adjustment of the worker. Clearly, for industrial sociology the problem does not appear with the degradation of work, but only with the overt signs of dissatisfaction on the part of the worker. From this point of view, the only important matter, the only thing worth studying, is not work itself but the reaction of the worker to it, and in that respect sociology makes sense.'⁴⁶

Perhaps Braverman's dismissal is a little too hasty, a little too easy.⁴⁷ For, if there is one issue on which both Marx and Mayo agree, it is the importance of consciousness as mediating the control exercised by the 'objective' factors of the organization of work, particularly technology.⁴⁸ Throughout the three volumes of *Capital*, Marx insists that the capitalist mode of production is not just the production of things but simultaneously the production of social relations and of *ideas about those relations*, a lived experience or ideology of those relations. That insight stretches from the discussion of fetishism in the first chapter of Volume 1 to the discussion of the trinity formula in the conclusion of Volume 3.⁴⁹ The Western Electric studies offered similar conclusions: namely, the importance of the creation of relations in production (the informal group) and the production of a certain consciousness (cooperation, fear, non-logical codes, etc.) as men and women manufactured things.⁵⁰ The point is that capitalist control, even under the most coercive technology, rests on an ideological structure that frames and organizes 'our lived relationship to the world' and thereby constitutes our interests. To be sure, industrial sociology interprets 'responses', 'informal groups' and 'games' in terms of its own concerns — that is, generally in terms of *marginal* changes in output, cooperation or whatever — whereas we will be concerned with relevance to the constant and common features of capitalist control, that is, the obscuring and securing of surplus value.

Since the range of excellent studies is so wide, I will confine myself to the implications of a single mode of adaptation applicable to a large variety of work contexts. Perhaps the most general formulation can be

found in William Baldamus's *Efficiency and Effort*. Baldamus argues that industrial labour can be defined in terms of certain 'work realities' that represent inherent forms of deprivation or what he calls effort. Thus, physical conditions give rise to 'impairment', repetitiveness to 'tedium', and coercive routines to 'weariness'. To the extent that these forms of effort are viewed as unavoidable, workers attempt to compensate through the achievement of corresponding 'relative satisfactions'. Impairment — the experience of physical discomfort due to working conditions such as long hours, heat, cold, noise, bad lighting — loses some of its effects over time as a result of 'adaptation', 'acclimatization' or 'inurement'. Tedium — the experience of repetitive or monotonous work — may be partially relieved through rhythm and the feeling of being pulled along by the inertia inherent in the particular activity, which Baldamus calls traction. Weariness or fatigue due to the coerciveness of industrial work finds its compensation in attitudes that express 'being in the mood to work', which Baldamus calls contentment. While inurement corresponds to specific working conditions, contentment corresponds to the coerciveness of work in general. But what is crucial to these compensating mechanisms is that 'they are feelings of temporary relief from the discomfort of certain work realities, feelings which arise when these factors have become part of the worker's customary interpretation of his situation. They are, to this extent, only apparent satisfactions, which are actually derived from deprivation.'⁵¹

Baldamus's insights about the emergent relations of workers to work can be extended to the creation of relative satisfactions in the social sphere. There are few work contexts, for example, in which labourers do not construct 'games', with respect to technology and to one another. Even on the assembly line workers manage to secure spaces for themselves in which to introduce uncertainty and to exercise a minimal control.⁵² These games are modes of adaptation, a source of relief from the irksomeness of capitalist work. In the literature of industrial sociology there is some ambivalence about the significance of games. On one hand they provide a way of absorbing hostility and frustration, diffusing conflict and aggression, and in general facilitating 'adjustment to work'.⁵³ On the other hand, they tend to undermine managerial objectives, reduce productivity, and waste time. William Foot Whyte expresses the dilemma admirably when he asks: 'Can the satisfaction involved in playing the piecework game be preserved in our factories at the same time that the attendant conflicts are reduced?'⁵⁴ Those who are interested in 'output restriction' or 'soldiering' tend to emphasize the negative effects. Crozier

suggests that games assume the form of power struggles wherever there is uncertainty in the labour process. He implies, therefore, that management should eliminate that uncertainty if work is to be more efficient.⁵⁵ In his commentary on the bank wiring-room experiment, George Homans suggests that games are an expression of informal sentiments that spring up in opposition to management.⁵⁶ What all these perspectives share is their concern with the *marginal* effects of games, the effects on increasing or decreasing output, on the distribution of power, or on the release of frustration. They take the existence of surplus, the conditions of accumulation, and so on, for granted, and their analyses revolve around quantitative concerns of how much surplus is appropriated.

I wish to take a different approach, in which games will be examined as providing the ideological preconditions for the obscuring and securing of surplus. More specifically, I will suggest that participation in games has the effect of concealing relations of production while coordinating the interests of workers and management. A game is defined by a set of rules, a set of possible outcomes, and a set of outcome preferences.⁵⁷ The seductiveness of a game rests on a combination of outcome uncertainty and a semblance of control over the outcomes through a 'rational' or 'calculating' choice among alternative strategies. Naturally the amount of control exercised, and the actual variation in permissible outcomes, are narrowly circumscribed. Yet, and this is what is important, they come to loom very large in everyday life on the shopfloor when everything else appears irrevocable. Indeed, the ideological effect of playing the game is to take 'extraneous' conditions (such as having to come to work) as unchangeable and unchanging, together with a compensatory emphasis on the little choice and uncertainty offered in the work context. That is, the game becomes an ideological mechanism through which necessity is presented as freedom.⁵⁸

Let me explain! The very act of playing a game produces and reproduces consent to the rules and to the desirability of certain outcomes. Thus, one cannot play chess and at the same time question the rules and objectives. Playing the game generates the legitimacy of the conditions that define its rules and objectives.⁵⁹ What are those conditions in the context of capitalist work if not the relations of production — having to come to work, the expropriation of unpaid labour, and so on? Workers, moreover, develop a stake in those rules and objectives, as can be seen when management intervenes to change them or somehow infringes on them.

But who establishes the game, its rules and its objectives, in the first

place? This is a matter of struggle, to be sure, and when the objectives genuinely threaten production, as sometimes occurs when workers double up on assembly lines, then management steps in and unambiguously outlaws the game.⁶⁰ For the most part, however, shop management (if not higher levels) becomes actively engaged in organizing and facilitating games on the shopfloor, particularly where they revolve around output. It is through their common interest in the preservation of work games that the interests of workers and shop management are coordinated. The workers are interested in the relative satisfactions games can offer while management, from supervisors to departmental superintendents, is concerned with securing cooperation and surplus.

The point of this digression has been to show how the *day-to-day adaptations*⁶¹ of workers create their own ideological effects that become focal elements in the operation of capitalist control. Not only can one not ignore the 'subjective' dimension, but the very distinction between 'objective' and 'subjective' is arbitrary. Any work context involves an economic dimension (production of things), a political dimension (production of social relations), and an ideological dimension (production of an experience of those relations). These three dimensions are inseparable. Moreover, they are all 'objective' inasmuch as they are independent of the *particular* people who come to work, of the particular agents of production.

These formulations pose an alternative to the problematic that continues to have strong roots in the Marxist tradition and is the cornerstone of Braverman's work. According to the traditional view, class as a historical force — class for itself — can emerge only from a particular intervention of certain 'superstructural' (political and ideological) or 'subjective' factors, situated outside the economic realm, on a pre-existing 'class in itself' defined in 'objective' economic terms. But, as we have seen, there is no such thing as a class in itself defined in 'objective' 'economic' terms. The so-called economic realm is inseparable from its political and ideological effects, and from specifically political and ideological 'structures' of the workplace.⁶² There is no 'objective' notice of class prior to its appearance on the stage of history. Acting on the historical stage has to be conceived of as a moment in the constitution of class.⁶³ Thus, class becomes the combined effect of a set of economic, political and ideological structures found in all arenas of social activity.⁶⁴ Edward Thompson makes the same point:

Even if 'base' were not a bad metaphor we would have to add that, whatever

it is, it is not just economic but human — a characteristic human relationship entered into involuntarily in the productive process. I am not disputing that this process may be broadly described as economic, and that we may thus agree that the 'economic movement' has proved to be the 'most elemental and decisive'. But my excursion into definition may have more than semantic interest if two points are borne in mind. First, in the actual course of historical or sociological (as well as political) analysis it is of great importance to remember that social and cultural phenomena do not trail after the economic at some remote remove: they are, at their source, immersed in the same nexus of relationship. Second, while one form which opposition to capitalism takes is in direct economic antagonism — resistance to exploitation whether as producer or consumer — another form is, exactly, resistance to capitalism's innate tendency to reduce all human relationships to economic definitions. The two are inter-related, of course; but it is by no means certain which may prove to be, in the end, more revolutionary.⁶⁵

In the following sections I hope to trace the significance of these two responses, to which I have referred as adaptation and struggles for understanding changes in the labour process, particularly those that revolved around Taylorism and the scientific-technical revolution.

Taylorism in Practice

Braverman distinguishes between Taylorism and the 'scientific-technical revolution' in that the former does not involve changes in technology. At points he implies that fundamental alterations in the labour process, the relations in production, were also part of Taylorism.⁶⁶ However, Taylor's own examples do not warrant such a conclusion. In the handling of pig iron at Bethlehem, in the machine shop at Midvale, in the inspection of bicycle balls, in Grant's analysis of brick-laying, and in the research on metal cutting, the intervention of scientific management perfected tasks already defined rather than reorganizing the division of labour. Braverman summarizes the principles of scientific management as follows: 'Thus, if the first principle is the gathering and development of knowledge of labour processes, and the second is the concentration of this knowledge as the exclusive province of management — together with its essential converse, the absence of such knowledge among the workers — then the third is the use of this monopoly over knowledge to control each step of the labour process and its mode of execution.'⁶⁷ To be sure, Taylor's *description* of his successes, say at Bethlehem and Midvale, follows these principles, but there are good reasons to be sceptical about their accuracy, particularly since Taylor was an interested party.

I have no quarrel with the first principle. There is no doubt that scientific management gathered together knowledge about tasks and decided the 'best way' to perform them. But it is by no means clear that this constituted a monopoly of knowledge of the labour process (after all, Taylor obtained his knowledge about the lathes from being a lathe operator himself), or that the new rulings could be enforced. Missing from the picture are the workers' responses and their ability to resist the specification of tasks.⁶⁸ It is one thing for management to appropriate knowledge; it is another thing to monopolize it. Braverman himself says, 'since the workers are not destroyed as human beings but are simply utilized in inhuman ways, their critical, intelligent, conceptual faculties, no matter how deadened or diminished, always remain in some degree a threat to capital'.⁶⁹ Rather than a separation of conception and execution, we find a separation of workers' conception and management's conception, of workers' knowledge and management's knowledge. The attempt to enforce Taylorism leads workers to recreate the unity of conception and execution, but in opposition to management rulings. Workers show much ingenuity in defeating and outwitting the agents of scientific management before, during and after the 'appropriation of knowledge'.⁷⁰ In any shop there are 'official' or 'management-approved' ways of performing tasks, and there is the workers' lore devised and revised in response to any management offensive. Not only does management fail to appropriate these 'trade secrets' but, as I shall suggest in the next section, it is not necessarily to its advantage to appropriate them. Shop management usually knows this.

Unlike changes in the division of labour and the scientific-technical revolution, Taylorism, defined by the specification of task performance, cannot be identified with the separation of conception and execution. What then is its relationship to capitalist control? It has been resisted by trade unions the world over and has promoted struggles by organizing labour and capital into hostile camps.⁷¹ On a day-to-day basis workers attempt to sabotage Taylorism, while at a broader level unions join in struggles to defend 'output' clauses in rules. Thus, scientific management may have undermined capitalist controls over the obscuring of surplus and of the relations of exploitation between capital and labour. With respect to the securing of surplus there can be no definitive answer.⁷² Insofar as Taylorism fostered antagonism between capital and labour, the coordination of interests became less feasible and the reliance on coercive measures more necessary.

As a practical tool of increasing capitalist control, Taylorism was a

failure. In a recent historical study of scientific management, Daniel Nelson concludes:

If the rather modest effect of scientific management on the wage-earners in these factories is surprising, its apparent failure to end the workers' traditional restrictive practices is not. Subsequent studies have documented the persistence of informal production norms and the employees' ability to defy the supervisor and the time study expert. That Taylor, his followers, and their clients believed scientific management would end 'soldiering' was another indication of how little they understood the foreman's functions and the workers' outlook. If the foreman, with his combination of threats and persuasion, could not change the workers' behaviour, what hope was there for an outside expert equipped with only a stopwatch and an incentive plan? Obviously there were limits to the manager's authority just as there were to the foreman's empire.⁷³

So what is the significance of Taylorism? One might argue that it lay precisely in its limited capacity to enhance capitalist control over the labour process, thus necessitating the transition to a new type of labour process inaugurated by the scientific-technical revolution. Was Taylorism then the expression of a transition from one labour process, which had developed its greatest potential in a detailed division of labour, to a labour process that incorporated 'capitalist control' within the very form of its technology?

Taylorism as Ideology

Braverman's exclusive concern with the 'objective' features of work blinds him not only to the *import* of Taylorism as a means of capitalist control — the fact that, by sowing the seeds of its own destruction, it necessitates its own supersession — but also to its significance as a purely ideological movement. Indeed, as I suggest below, his failure to distinguish between Taylorism as managerial practice and Taylorism as a mode of legitimation prevents him from understanding a crucial aspect of domination under advanced capitalism, namely the appearance of ideology in the guise of science.

Writing of the United States, Bendix argues that Taylorism was harnessed to the managerial cause in the open-shop movement. At the turn of the twentieth century managerial ideology was still linked to the social philosophy of Spencer and Smiles, whose emphasis on initiative and independence had the unwelcome effect of encouraging the growth of trade unions. Taylorism, on the other hand, with its emphasis on compliance and obedience to management in the pursuit

of the common interest, could be mobilized as an *ideological* attack on the nascent trade-union movement. 'But the major point is that American employers did not regard Taylor's methods as an effective answer to the challenge of trade unionism, even when they decided to adopt these methods to solve some of the managerial problems. In their struggle against trade unions employers made use of weapons which differed strikingly from the tests and measurements that were the hallmark of scientific management. Yet the principal ideas in Taylor's work were widely accepted: the social philosophy rather than the techniques of scientific management became a part of prevailing ideology.'⁷⁴

Maier takes Bendix's argument much further in his examination of the receptiveness of different nations to Taylorism or scientific management. He shows how Taylorism was most strongly embraced in those nations faced with a political crisis. During the early post-war years, it became an important plank in the ideology of national syndicalists and fascists in Italy, 'revolutionary conservatives' and 'conservative socialists' in Germany, the new leadership in the Soviet Union, and the Industrial Workers of the World and the Socialist parties in the United States.⁷⁵ Disparate though these social movements were, they all shared in the attempt to transcend immediate political institutions by mobilizing scientism in the projection of a utopian image of a harmonious society where 'politics' becomes superfluous. The combination of technology and what Maier refers to as 'irrationalism' offered a cooperative vision of the present or future society in the context of, and as a reaction to, the intensifying class struggle of the period.⁷⁶

But why was Taylorism embraced so enthusiastically during the crises of that particular period? What was peculiar about those crises? What was it about Taylorism that made it acceptable to such a wide audience? The crises of the first three decades of this century were bound up with the transition from competitive to monopoly ('advanced' or 'organized') capitalism.⁷⁷ The market became increasingly ineffective as a mechanism for regulating relations among capitalists, between capital and labour, and among different segments of the labour force. At the same time, the state was assuming a larger role in the organization of these relations. The political and economic became increasingly intertwined. The prevailing ideology of 'free and equal' exchange, based as it was on the dominance of the market, could not legitimate the new relations of capitalism.

From where would a new ideology appear to legitimate the state's growing involvement in the organization of the economy? How would

the political aspects and implications of state interventions be obscured or made acceptable to the public? Habermas and Marcuse argue that under advanced capitalism political problems are no longer masked by the 'natural' working of the market but are projected as problems of science and technology. Thus the application of science to the labour process not only led to the 'expansion of the forces of production' but simultaneously laid the basis for a new ideology in which the preservation of capitalist relations was presented as a technical matter to be removed from political discourse.⁷⁸ The pursuit of 'efficiency' became the basis of a new ideology, a new form of domination. Rationality was turned on its head and became irrationality.⁷⁹ Or, as Habermas puts it, rationality from below (science as the pursuit of efficiency) merges with rationality from above (science as ideology) and in this way both obscures capitalist relations of production and legitimates state interventions as non-political because scientific.⁸⁰ In failing to distinguish clearly between Taylorism as practice and Taylorism as ideology, Braverman is merely giving expression to appearances. And this, as I have argued, is because his theoretical framework allows him to discount ideology as a factor essential to the study of capitalism. In short, because he ignores ideology he becomes its prisoner.

The Rise of Taylorism

Thus far we have seen how, in assessing the *effects* of Taylorism as practised, Braverman makes all sorts of erroneous assumptions about the ideological dimension of the labour process, while at the same time missing the import of Taylorism as part of a wider ideological shift reflecting a critical transition in the development of capitalism. The problem is not only that Braverman ignores the 'subjective' dimension of work or 'super-structural elements', but that his very conceptual scheme — subjective/objective (base/superstructure) — leads him to a misleading formulation of the problem. Braverman runs into similar problems when writing about the *causes* of change in the labour process, of Taylorism, of the separation of conception and execution, and of the scientific-technical revolution, in that he makes certain assumptions about the consciousness of managers and capitalists and continues to ignore resistance and struggle.⁸¹

Let us first confine our attention to Taylorism. Here the functionalist logic of Braverman's analysis is particularly clear. 'Modern management came into being on the basis of these principles. It arose as theoretical construct and as systematic practice, moreover, in the

very period during which the transformation of labour from processes based on skill to processes based upon science was attaining its most rapid tempo. Its role was to render conscious and systematic, the formerly unconscious tendency of capitalist production. It was to ensure that as craft declined, the worker would sink to the level of general and undifferentiated labour power, adaptable to a large range of simple tasks, while as science grew, it would be concentrated in the hands of management.'⁸²

According to Braverman, then, the presumed effect (increased control over the labour process) is also the cause of scientific management. He is therefore forced to assert that Taylor's formulations on control were part and parcel of managerial consciousness: 'What he (Taylor) avows openly are the now-unacknowledged private assumptions of management.'⁸³ Braverman's focus on outcomes rather than causes parallels his concern with the objective circumstances of labour and their critique rather than with how Taylorism works, whether it works at all, or how people put up with it or change it.

Further, why was it that Taylorism appeared when and where it did? Why did it follow its particular historical trajectory? If 'the dictation to the worker of the precise manner in which work is to be performed' is an 'absolute necessity for adequate management',⁸⁴ then why did we have to wait until the end of the nineteenth and the early twentieth century before Taylorism was applied? Not surprisingly, Braverman's explanation focuses on ecological factors, in particular the 'growth of the size of the enterprise'.⁸⁵ 'Taylorism cannot become generalized in any industry or applicable in particular situations until the scale of production is adequate to support the efforts and costs involved in "rationalizing" it. It is for this reason above all that Taylorism coincides with the growth of production and its concentration in ever larger corporate units in the latter part of the nineteenth and in the twentieth centuries.'⁸⁶ In limiting his attention to such factors, Braverman imports three major and possibly questionable assumptions into his argument. First, the interests of managers and capitalists lay in the implementation of Taylorism. Second, managers and capitalists shared and understood those interests.⁸⁷ Third, managers and capitalists had the power to impose these interests on the working class. Let us look at each assumption in turn.

With regard to the first, as I have already suggested, Taylorism as a managerial practice was not always in the interests of capital. Rather, it often promoted resistance and struggle and in so doing undermined the extraction of surplus. Thus, it is difficult to argue that Taylorism's consequences were also its causes. In turning to the second assump-

tion, however, we must pose the question of the intentions of managers and capitalists in their endeavours to introduce scientific management. One might want to examine changes in the consciousness of managers and capitalists during the period 1880 – 1920 in an attempt to account for interest in (and also opposition to) Taylorism. Thus, Hobsbawm emphasizes how with the growth of trade unions, operatives were learning the rules of the game — that is, to manipulate market factors in adjusting effort to reward. This brought about new employment practices that would utilize labour time more efficiently.⁸⁸ Montgomery argues that it was after immigrants to the United States had accustomed themselves to the discipline of industrial work and had learned the rules of the game that scientific management gained widespread appeal among managerial classes, even if it failed to eliminate 'restrictive practices'.⁸⁹

As both Hobsbawm and Montgomery recognize in their tentative explorations, the issues are complex. One must ask, for example, what impact the growth of the corporation, and in particular the institutional separation of ownership and control had upon the consciousness of managers. Could it not be argued that the specialization of the managerial function led to attempts to introduce scientific management? Moreover, if management's consciousness can be seen apart from that of capitalists, can it not be argued that managers themselves do not form a monolithic group? Variations might appear not only between different fractions of capital but also within the firm itself. Thus, one might speculate that different levels of management will be preoccupied with different aspects of the labour process. Lower-level management, in daily contact with the worker, might oppose the introduction of Taylorism in an attempt to prevent conflict, while middle levels of management might be responsible for instigating such changes with a view to cheapening the cost of labour power. The highest levels might be concerned only with profits and efficiency and express little interest in how these are realized. They would be more concerned with mobilizing Taylorism as ideology. Equally significant are the diverse concerns of different fractions of management within the single firm, that is, among different departments: engineering, quality control, manufacturing, maintenance, and so on. Any change in the labour process will therefore emerge as the result not only of competition among firms, not only of struggle between capital and labour, but also of struggle among the different agents of capital.

Whatever the answers to these questions, it is clear that one cannot assume the existence of a cohesive managerial and capitalist class that automatically recognizes its true interests. Rather, one must examine

how that class is organized and how its interests emerge historically through competition and struggle. This brings me to the third assumption: that agents of capital were sufficiently powerful to enforce their interests over those of other classes. Braverman relegates workers' resistance to Taylorism to an essentially derivative role, an impotent expression of their helpless subordination to capital.⁹⁰ The fact of the matter is that many unions in the United States were able to resist Taylorism.⁹¹ In other countries resistance was even more effective.⁹² What must be explained is the specific balance of power between capital and labour that led to effective resistance here and capitulation there. Was Taylorism an offensive of capital against a weak proletariat, or a defensive measure taken in the face of a strengthening proletariat? Perhaps the significance of large corporations lay not only in their size but also in the power they bestowed upon capital to impose its will on labour. What was the relationship between the emergence of the corporate liberal state and the struggles between capital and labour? Can changes in the balance of power account for shifts in the trade unions' position vis-à-vis Taylorism?⁹³

The Scientific-Technical Revolution

Whereas Braverman may express a certain ambiguity about the stimulus to scientific management, his views on the source of the scientific-technical revolution are unequivocal. Like Marx, Braverman argues that competition among capitalists leads to increasing productivity through mechanization.⁹⁴ Control becomes a secondary feature in the organization of work, while the pursuit of efficiency becomes its primary feature. Relations in production are fashioned by a concern for the separation of conception and execution only after machinery has been determined by productivity drives. But Braverman presents another view, based on the Babbage principle, according to which control is inseparable from the pursuit of efficiency.⁹⁵ 'The design which will enable the operation to be broken down among cheaper operators is the design which is sought by management and engineers who have so internalized this value that it appears to them to have the force of natural law or scientific necessity.'⁹⁶

We shall return to a discussion of the relationship between 'efficiency' and 'control' in section 4. For the moment let us assume that management invests in order to increase the productivity of labour. The question of timing remains. *When* does management introduce new machines? When they are available on the market? When there is pressure of competition? Or as a response to struggle? Indeed, can the

concept of efficiency be examined independently of struggle? An interesting contemporary example is the mechanization of field work in agribusiness. Technology has been available or could always have been developed, but so long as growers could draw on a reservoir of cheap labour there was no urgency. With the growth of unionism and the end of the Bracero programme, mechanization has proceeded rapidly in tomato picking and promises to dominate lettuce harvesting.⁹⁷ The advance of mechanization must be seen as a response not just to increasing costs of labour but also to labour's increasing power. Hand picking was acceptable so long as an ample labour supply was available, but with the growth of the United Farm Workers the availability of large quantities of gang labour became problematic. The move toward capital-intensive harvesting is therefore an attempt to undercut the union's strength by reducing labour requirements. All of this indicates that the advance of the scientific-technical revolution hinges not only on competition but also on struggle. Braverman cannot justifiably reduce resistance from labour to 'internal friction'.⁹⁸ Struggle is not merely derivative but is also determinative of capitalism's development.⁹⁹

Historical Tendencies of the Capitalist Labour Process

Can we extend our discussion of the growth of mechanization to its emergence? What is the relationship between scientific management and mechanization (scientific-technical revolution)? Braverman states categorically: 'Scientific management and the "movement" for the organization of production on its modern basis have their beginnings in the last two decades of the last century. And the scientific-technical revolution, based on the systematic use of science for the more rapid transformation of labour power into capital, also begins . . . at the same time. In describing these two facets of the activity of capital, we have therefore been describing two of the prime aspects of monopoly capital. Both chronologically and functionally, they are part of the new stage of capitalist development, and they grow out of monopoly capitalism and make it possible.'¹⁰⁰

Of course, such an assertion requires a good deal of documentation.¹⁰¹ By collapsing Taylorism and the scientific-technical revolution as two aspects of monopoly capitalism, Braverman squeezes all the dynamics out of the transition from competitive to monopoly capitalism. Earlier I suggested an alternative hypothesis. Just as Marx described how class struggle, through the enforcement of the factory

acts in England, led to the transition from 'absolute surplus value' (extending the working day to enhance profits) to 'relative surplus value' (increasing productivity to enhance profits), so at a later time class struggle fostered by Taylorism led to the transition from scientific management to the scientific-technical revolution.¹⁰² Moreover, I would suggest that this transition at the level of the labour process may have corresponded to the transition from competitive to monopoly capitalism. According to such an argument Taylorism, rather than being the handmaiden of monopoly capitalism, was its midwife.

However, we might ask whether the systematic development of the separation of conception and execution constitutes the only or even the most appropriate demarcation of competitive from monopoly capitalism, with regard to the process of production. To make an argument of this type requires at least a minimal examination of the labour process under competitive capitalism, that is, in the United States prior to 1880. But Braverman systematically fails to do this. Instead he presents a false comparison of the realities, as he sees them, of twentieth-century capitalism, based on the expropriation of skill, with an idealization of nineteenth-century capitalism, based on the craft worker.¹⁰³ It does not require a great deal of historical knowledge to appreciate the extreme forms of deskilling prevalent during the early years of capitalism. A cursory glance through Engels's survey of the various branches of industry in the first half of nineteenth-century Britain makes it clear that few workers had much control over the labour process.¹⁰⁴ In short, it is difficult to link the separation of conception and execution to the periodization of capitalism. An alternative way of characterizing changes in the production process would be to focus on the emergence of particular ideological and political structures at the point of production that serve to obscure and secure surplus by organizing consent on the shop floor, displacing struggles, and thus guaranteeing the reproduction of the relations in production.¹⁰⁵

Finally, we must return to the question we posed earlier concerning the relationship between capitalist control and the separation of conception and execution. I would suggest that capitalist control — the simultaneous obscuring and securing of surplus — sets limits on the form of the separation of conception and execution. Too little separation threatens to make surplus transparent, while too much threatens the securing of surplus. The capitalist labour process — in all its phases — is confined within these historically variable limits. Economic crises, global or local, are inaugurated when those limits are

traversed. Thus, job enrichment, job enlargement and job rotation signify the existence of upper limits on the separation of conception and execution. While they may not actually reverse the trend, these marginal adjustments to the labour process may nevertheless act as a buffer to further deskilling. They are a warning light: do not go beyond this point. If only for this reason, the new human relations of corporate management must be taken very seriously and not dismissed as so many 'petty manipulations of personnel departments and industrial psychology and sociology'.¹⁰⁶ We must now turn to the question of how much manipulation is actually possible under capitalism, and of the extent to which such changes are limited by purely technical imperatives on one hand and social imperatives on the other.

4. Technology: Innocent or Tainted?

Given his leaning toward 'critique', Braverman naturally devotes much space, implicitly if not always explicitly, to the nature of the labour process under socialism. Indeed, in this respect Marxism has been the only major social theory that neither marks capitalism as the end of history nor regards the labour process under capitalism as eternal or inevitable. On this turns the debate between Marx and Weber and, more recently, between Marcuse and Habermas.¹⁰⁷ Is the rationality that Weber spends so much space delineating a capitalist rationality that embodies, albeit in veiled form, a specific form of capitalist domination? Or is it somehow innocent, neutral, and destined to be with us in its essentials for ever more? Do 'technology' and 'efficiency' have a momentum and determinism of their own that carry society with them? Or are they relative to the mode of production in which they appear, and in this sense determined by the corresponding set of relations of production?

Braverman naturally takes a position against crude technological determinism and views the shaping of the labour process as specific to a mode of production. Thus, he argues that the same 'technology' can in fact appear as part of two different labour processes corresponding to two different modes of production — for example, steam power under feudal and capitalist modes of production. Furthermore, each mode of production creates its own technology: "Thus if steam power 'gives us' the industrial capitalist, industrial capitalism 'gives us', in turn, electric power, the power of the internal combustion engine, and atomic power."¹⁰⁸ Just as feudal relations of production give us one type of technology and capitalist relations of production give us another, so presumably socialism will give us a third. However,

actually to anticipate its form in a positive rather than negative manner would be like asking a feudal journeyman to anticipate capitalist atomic power. The question, then, is not whether socialist technology is *possible* but whether it is *necessary*. That is, can socialism operate with capitalist machines, or do the machines impose constraints on relations of and in production that make socialism impossible?¹⁰⁹

The issue is not abstract, as can be seen in current debates on the nature of the Soviet Union. We all know, if only because we have been told so countless times, that Lenin enthusiastically embraced Taylorism and the capitalist machines that went along with it. Braverman writes: 'Whatever view one takes of Soviet industrialization, one cannot conscientiously interpret its history, even in its earliest and most revolutionary period, as an attempt to organize labour processes in a way fundamentally different from those of capitalism — and thus as an attempt that came to grief on the rocks of Clark Kerr's eternal verities. One would be hard put to demonstrate that any of the successive Soviet leaderships has ever claimed that such an attempt should be made at this stage of Soviet history.'¹¹⁰

A crucial question emerges: to what extent can we attribute the failure of the socialist experiment in the Soviet Union to the continuity of what is, for all intents and purposes, a capitalist labour process? Lenin's position was to assume that in its advanced form — and in 1917 Taylorism was an advanced form — capitalist technology provides the basis for socialism. He saw his task as grafting socialist relations of production, which he tended to reduce to the political superstructure — 'the dictatorship of the proletariat' — onto capitalist forces of production. In so doing he denied the specifically capitalist character of the labour process: fragmented work, alienation, exploitation, separation of manual and mental activities, the simultaneous obscuring and securing of surplus value. But equally important, he also denied that this capitalist organization of the labour process imposed limits on the form of the corresponding relations of production and therefore on the mode of production as a whole.¹¹¹

Social and Technical Relations in Production

For Braverman the transformation of the relations in production is a *sine qua non* for establishing socialism, but what is less clear is whether the socialist project also involves a new technology — a socialist technology. The problem can be formulated as follows. Capitalist relations in production are at least partly shaped by capi-

talist relations of production (obscuring and securing of surplus, or for Braverman the separation of conception and execution). This aspect of the labour process we can call the *social relations in production*. At the same time, the very instruments of production may embody their own imperatives for the organization of the labour process. That is, machines, irrespective of the relations of production under which they are used, may place certain limits on the organization of work, which I will call the *technical relations in production*.¹¹² There are then two aspects to the question of the necessity of socialist machines. First, do capitalist machines generate technical relations in production? Second, if so, are these relations compatible with socialism? In other words, does the assembly line or the numerically controlled lathe *require* certain forms of hierarchy, alienation and so on, at odds with socialism? If capitalist machines do impose such limitations, then the inauguration of socialism also requires socialist machines.

Braverman generally argues that there are no technical relations in production and that capitalist machines can be used under socialism. 'Machinery comes into the world not as the servant of "humanity", but as the instrument of those to whom the accumulation of capital gives the ownership of the machines. The capacity of humans to control the labour process through machinery is seized upon by management from the beginning of capitalism as the prime means whereby production may be controlled not by the direct producer but by the owners and representatives of capital. Thus, in addition to its technical function of increasing the productivity of labour — which would be a mark of machinery under any social system — machinery also has in the capitalist system the function of divesting the mass of workers of their control over their own labour.'¹¹³

Even more clearly: '(I)n the factory it is not the machines that are at fault but the conditions of the capitalist mode of production'; 'it is not the productive strength of machinery that weakens the human race, but the manner in which it is employed in capitalist social relations.'¹¹⁴ However, at other points Braverman is more hesitant about the neutrality of machines: 'These necessities are called "technical needs", "machine characteristics", "the requirements of efficiency", but *by and large* they are the exigencies of capital and not of technique' (*italics mine*).¹¹⁵ Moreover, some capitalist machines would indeed be inconceivable under socialism because of the technical constraints they impose. One such example is the assembly line, which Braverman considers a 'barbarous relic'. Significantly, he writes, 'from a technological point of view it is extraordinarily primitive and has little to do with "modern machine technology".'¹¹⁶ The upshot is that for

Braverman 'advanced' capitalist technology gives rise to only insignificant technical relations in production, and capitalist machines therefore do not present an obstacle to the implementation of socialism.¹¹⁷

Socialist Machines and Capitalist Efficiency

But one can only argue that the technical relations in production are insignificant by reference to some explicit notion of socialism. For Braverman 'socialist socialization' of the workplace seems to mean the reunification of conception and execution.¹¹⁸ 'In reality, machinery embraces a host of possibilities, many of which are systematically thwarted, rather than developed, by capital. An automatic system of machinery opens up the possibility of the true control over a highly productive factory by a relatively small corps of workers, providing these workers attain the level of mastery over the machinery offered by engineering knowledge, and providing they then share out among themselves the routines of the operation, from the most technically advanced to the most routine. This tendency to socialize labour, and to make of it an engineering enterprise on a high level of technical accomplishment, is, considered abstractly, a far more striking characteristic of machinery in its fully developed state than any other. Yet this promise, which has been repeatedly held out with every technical advance since the Industrial Revolution, is frustrated by the capitalist effort to reconstitute and even deepen the division of labour in all of its worst aspects, despite the fact that this division of labour becomes more archaic with every passing day.'¹¹⁹

Few would disagree that the reunification of conception and execution is a *necessary* condition for the advent of socialism or communism, and to be sure, given Braverman's analysis of how the occupational structure rests on this principle, its elimination would involve a major transformation of society. Nevertheless for many, in particular the leading members of the Frankfurt School, the impediments to socialism cannot be reduced to the separation of conception and execution but enter into the very constitution of capitalist technology.¹²⁰ No matter how advanced, machines built for capitalist efficiency may be incompatible with socialism. There is an argument in *Labour and Monopoly Capital* that could be mobilized against the innocence of capitalist machines, and it rests on the Babbage principle. The expropriation of skill does not merely enhance the control of the capitalist but also cheapens the labour power he employs: 'In a society based upon the purchase and sale of labour power, dividing the craft cheapens its individual parts', and 'therefore, both in order to

ensure management control and to cheapen the worker, conception and execution must be rendered separate spheres of work.¹²¹ In other words, the type of machine that is designed to increase efficiency under capitalism is the very machine that enhances control; efficiency becomes domination.¹²²

While this position may be found in Braverman, he more usually argues that efficiency and domination are distinct aspects of the labour process, and capitalist machines are uncorrupted by the needs of capitalist control. 'While the forms of utilization of machinery — the manner in which labour is organized and deployed around it — are dictated by the tendencies of the capitalist mode of production, the drive to mechanize is itself dictated by the effort to increase the productivity of labour.'¹²³ Machines themselves are innocent; they are instruments of increasing the productivity of labour, of incorporating 'ever smaller quantities of labour time into ever greater quantities of product';¹²⁴ increasing the productivity of labour under capitalism is therefore the same as increasing its productivity under socialism.¹²⁵

This brings us back to the problem we discussed earlier, the nature of capitalist control. Capitalism can and did survive under conditions of the unification of conception and execution. Their separation is not at the core of the capitalist labour process per se but is something that emerges and disappears in an uneven fashion as capitalism develops. The craft worker was, and indeed in some places still is, a part of capitalism. Thus, to identify the reunification of conception and execution with socialism is to confuse job control with workers' control,¹²⁶ relations in production with relations of production. It risks not going far enough and, in the process, mistaking a nostalgia for the past for a nostalgia for the future.

5. Totalities: Expressive or Structured?

In section 2, we saw how Braverman mistakes appearances for essence in the projection of the separation of conception and execution as the definitive feature of the capitalist labour process; in section 3, how he sets the separation of conception and execution in motion, marching it through the history of capitalism and casting resistance to the winds; and in section 4 how, pushed to its furthest limits, the separation of conception and execution must eventually bring forth its own negation and, like Odysseus, return home to the restoration of the craft worker as the principle of socialism. Braverman's capitalist totality, then, is constructed out of the penetration of the entire social structure by the commodification of social life and with it the degradation

of work as manifested through the separation of conception and execution. Like a cancerous growth commodification and degradation appear with a momentum of their own, as they are expelled from the centre of the capitalist economy into its furthest corners. They cannot rest until they have subordinated the entire fabric of social life to themselves. A concern with specific causes, bringing them about here rather than there, now rather than later, is irrelevant in the broad sweep of history. Since commodification and degradation are the defining principle of capitalist society, its essence, its true self, an irresistible force, so cause and effect are indeed one.

The Destruction of the Bourgeois Individual

What Braverman describes with seductive clarity and imagination is an expressive totality in which each part becomes the expression of a single dominant principle, of the whole. 'It is not the primacy of economic motives in historical explanation that constitutes the decisive difference between Marxism and bourgeois thought, but the point of view of the totality, the all-pervasive supremacy of the whole over the parts that is the essence of the method Marx took over from Hegel.'¹²⁷

Parallels with Weber's conception of rationalization as the emergent and pervasive essence of capitalism are instructive. Although Weber makes rationalization a principle of all future societies, while Braverman and Lukács confine their expressive totalities to capitalism, all three fail to spell out the mechanism that drives society forward. It is presumed by Weber that industrialism seeks ever greater heights of efficiency, that this efficiency embodies its own irreversible momentum, and that rationalization is its inevitable and only mode of realization. There is little concern to examine for whom, by whom, and how it will be carried out, the struggles it may engender, or the different forms it may take.

But Weber is also sensitive to the other side of rationality: domination. 'This (modern economic) order is now bound to the technical and economic conditions of machine production which today determine the lives of all the individuals who are born into this mechanism, not only those directly concerned with economic acquisition, with irresistible force. Perhaps it will so determine them until the last ton of fossilized coal is burnt. In Baxter's view the care for external goods should only lie on the shoulders of the "saint like a light cloak, which can be thrown aside at any moment." But fate decreed that the cloak should become an iron cage.'¹²⁸

Weber's individuals are Braverman's workers, who 'work every day to build for themselves more "modern", more "scientific", more dehumanized prisons of labour.'¹²⁹ The craft worker is destroyed, converted into a disembodied appendage of capital. The same theme dominates critical theory: 'The original fruitfulness of the bourgeois organization of the life process is thus transformed into a paralyzing barrenness, and men by their own toil keep in existence a reality which enslaves them in ever greater degree.'¹³⁰ This convergence is no coincidence. Braverman as the dispossessed craft worker, Weber as the disenchanting liberal, and Horkheimer as the isolated and despairing Marxist intellectual, each mourns the eclipse of the bourgeois individual, if in different incarnations.¹³¹ In the name of the future, they resurrect a mythical past as the basis for refusing the iron cage, the prisons of labour, and the paralyzing barrenness, for resisting the capitalist totality — totalitarianism in its various guises. But of the three, Braverman offers the richest concretization of the expressive totality, and it is to this that we now turn.

Braverman's Totality

Like its forerunners, Braverman's analysis is no crude historicism: it is both subtle and compelling. Far from suggesting a smooth linear tendency, Braverman demonstrates how the degradation of work continuously creates its own countertendencies — barriers it casts aside as surely as it sets them up. Thus capitalism, as it expands and subordinates ever greater regions of social life, creates new skills and with them new craft workers embodying the unity of conception and execution. But with equal consistency, capitalism proceeds to fragment the craft, doling it out again in minute and deskilled tasks.¹³²

Braverman develops his 'expressive totality' in its purest form when describing the penetration of capital into the family and community. Here he is at his most explicit in adopting the metaphors of critical theory: the disintegration, destruction, atomization, irrationality of everyday life outside the factory and office; the eclipse of neighbourly feelings and affective ties. The family must 'strip for action in order to survive and succeed in the market society.'¹³³ 'It is only in its era of monopoly that the capitalist mode of production takes over the totality of individual, family and social needs and, in subordinating them to the market, also reshapes them to serve the needs of capital. It is impossible to understand the new occupational structure — and hence the modern working class — without understanding this development. How capitalism transformed all of society into a gigantic

marketplace is a process that has been little investigated, although it is one of the keys to all recent social history.'¹³⁴

Rosalyn Baxendall, Elizabeth Ewen and Linda Gordon extend the notion of separation of conception and execution to domestic life.¹³⁵ At the same time, the functions hitherto carried out in the family are appropriated by capital in the formation of new industries such as cleaning, health, personal, food and protective services. 'The conquest of the labour processes formerly carried on by farm families, or in homes of every variety, naturally gave fresh energy to capital by increasing the scope of its operations and the size of the "labour force" subjected to its exploitation.'¹³⁶ The story is repeated — capital destroys old occupations, creates new ones, and then subjects these to the separation of conception and execution.

From where do people emerge to fill these new occupations? Here Braverman makes imaginative use of Marx's 'general law of accumulation'.¹³⁷ Accumulation involves not only the expansion of surplus value and the conquest by capital of new branches of production, but also the creation of a relative surplus population. The penetration of capital into domestic and agricultural work sets free a hitherto untapped reservoir of labour power, which enters the working class in large numbers. In addition, labour is pushed out of highly mechanized industries and piles up in the less developed, less mechanized service and retail sectors. The movement and creation of living labour obey the marching orders of dead labour. 'But since, in its [the working class's] permanent existence, it is the living part of capital, its occupational structure, modes of work and distribution through the industries of society are determined by the ongoing processes of the accumulation of capital. It is seized, released, flung into various parts of the social machinery and expelled by others, not in accord with its own will or self-activity, but in accord with the movement of capital.'¹³⁸

Here then, in summary form, we have Braverman's expressive totality. The capitalist mode of production in its aspect of relations of production (the appropriation and distribution of surplus value) propels capital into family and community life, releasing labour power and creating new industries. In its aspect of forces of production (relations in production, mechanization, labour process) the capitalist mode of production propels labour power from one sector to another and simultaneously spreads the degradation of work through the separation of conception and execution. The rise and fall of new industries and occupations is not uniform through time or space, but follows a law of combined and uneven development.

Its uneven development notwithstanding, Braverman appears to assume that the labour process of monopoly capital will eventually conquer the entire economy. Competitive capital with its own distinctive labour process inevitably succumbs to monopoly capital. In practice, however, monopoly capital continually recreates competitive capital as a condition for its own expansion. Thus, market uncertainties that cannot be controlled through increases in size are contracted out or otherwise externalized and made the basis of competitive capital, as, for example, is true for the garment industry. Inasmuch as this picture of competitive and monopoly capital reproducing each other is empirically well founded, it is misleading to equate, as Braverman tends to do, the period in which monopoly capital is dominant — that is, monopoly *capitalism* — with monopoly *capital*.

Mistaking the part for the whole is, of course, a consequence of the adoption of an expressive totality. In this light it would be of interest to examine the changes in the labour process of some competitive industry during the period of monopoly capitalism. In what ways have these changes been shaped by functional relations of interdependence among capitals mediated through the market, and in what ways by new forms of capitalist control pioneered in the monopoly sector and adopted in response to struggles or in the pursuit of efficiency? While the labour processes in both competitive and monopoly sectors of the economy have been changing over the last century, are they tending to diverge or converge in the forms they assume? What is the direction of development in the state sector? Again such studies would have to consider the political and ideological institutions that have grown up around the labour process.

It becomes clear from the above that Braverman has exposed for us only one aspect of capitalist society, namely, how the economic increasingly dominates the social structure, the totality. But what is this totality? In what does it consist? What determines it? Because he takes for granted the existence of the totality, Braverman leaves us in the dark on these issues. And possibly for a good reason. For to pose these questions would carry him into a very different type of analysis, one that would aim to discover the preconditions of domination: how it all works; how in fact labour power, capital, and needs for new commodities coincide spatially and temporally; how under advanced capitalism it just so happens that the commodities produced are also consumed, and so on. In the endeavour to see how capitalism actually works, how it is at all possible, it is necessary to cast off the simple functionalist logic that underlies much of *Labour and Monopoly Capital*, and historicist analysis in general — that is, we must unlock

the identification of cause and consequence, of intention and effect, of purpose and outcome.¹³⁹

The peculiarity of the capitalist mode of production, from a Marxist point of view, is that the economic realm *both dominates the parts of the social structure and determines the form of existence of, and the relations among, those parts*. Whereas in general the economic determines that aspect of the social structure that is dominant, only under capitalism does the economic determine that it itself is dominant. As Marx wrote: 'The mode of production determines the character of (read 'dominates') the social, political, and intellectual life generally; all this is very true for our own times, in which material interests preponderate, but not for the middle ages, in which Catholicism, nor for Athens and Rome, where politics reigned supreme. . . . This much, however, is clear, that the middle ages could not live on Catholicism, nor the ancient world on politics. On the contrary, it is the mode in which they gained a livelihood that explains why here politics, and there Catholicism, played the chief part.'¹⁴⁰

Thus, by confining his attention to the dominance of the economic, Braverman succumbs to appearances and ignores the conditions that determine that dominance and make it possible.

The Structured Totality

I will now develop an alternative notion of totality. We will begin with a notion of history conceived of, at the most general level, as a succession of modes of production. How is it that any one mode of production can survive over time without collapsing or being superseded by a different mode? In other words, what are the conditions of reproduction of a given mode of production, or what are the conditions of reproduction of the combination 'relations of and in production' that define a mode of production?

In section 2, I established that feudal relations of production can be reproduced only through the intervention of an extra-economic element. This extra-economic element — say, religion — then becomes dominant because it is necessary for the reproduction of the feudal mode of production. By contrast, under the capitalist mode of production, since the relations of and in production reproduce themselves of themselves (in principle), political, legal and ideological intervention is limited and the economic itself becomes dominant.¹⁴¹ Moreover, because the political, legal and ideological instances are not implicated in the mode of production itself, we can talk about the political, legal and ideological as separate spheres of activity. We can

even talk about their relative autonomy. The legal structure, for example, has a coherence and dynamic of its own, and its precepts cannot be arbitrarily changed by external forces. Moreover, it performs a 'legitimizing' function by masking the relations of production, in particular by *creating* distinctions between people and things, by blurring the distinctions between different types of things (things consumed productively — machines — and things consumed unproductively — shirts) and different types of people (those who must sell their labour power and those who own the means of production), and by reconstituting agents of production as 'free and equal' citizens.¹⁴² Similar arguments can be made concerning the political and ideological realms.

Suffice it to say that by attempting to construct a social structure out of the reproduction requirements of the capitalist mode of production, one arrives at a totality composed of different parts, each with its own structure that both expresses and conceals economic relations, each moving with its own dynamics of 'history' in relative independence of the economic. Brief though this digression has been it nonetheless lays the basis for a very different type of totality — a structured rather than an expressive totality. As I shall suggest below, both notions of totality are necessary, but the structured totality must be regarded as prior to the expressive totality.¹⁴³

First let me concretize the issues with a few examples that highlight the differences between the two types of totality. What I said above is true only at a very general level. In practice, even though the political, legal and ideological instances are not implicated within the capitalist mode of production, they are nonetheless necessary for the reproduction of the relations of production. Thus, James O'Connor discusses the market-supplementing functions of the state, how it organizes relations among capitalists by the provision of social investment (infrastructure that individual capitalists cannot afford, such as highways and research) and social consumption (items that reduce the costs of reproducing labour power — that is, wages — through state education, subsidized housing, and so forth).¹⁴⁴ The state functions to provide conditions not only of accumulation but also of legitimation. The latter involve social expenses such as welfare and social security. O'Connor also shows how it is both *necessary* and *problematic* to combine the functions of legitimation and accumulation. But Braverman does not find much that is problematic about the survival of capitalism, and not surprisingly devotes only six pages to 'the role of the state'.¹⁴⁵

However, a serious examination of the capitalist state would reveal

the problematic nature of what Braverman regards as unproblematic, and show that contradictions frequently become crystallized in the state. Thus, Claus Offe and Volker Ronge see a major crisis tendency for advanced capitalism in the *inability* of surplus capital to meet up with surplus labour power.¹⁴⁶ Only by state intervention, through what they call administrative recommodification, can idle capital be joined to unemployed labour. Thus, too, Habermas locates the distinctive features of advanced capitalism as the breakdown of the market and the 'legitimation' crises this calls forth.¹⁴⁷ With the declining significance of the market, the distribution of commodities, rather than appearing natural and inevitable, becomes the object of political struggle. The state must seek new ways to justify the existing patterns of distribution, and we discover the emergence of price and income policies. For Ernest Mandel, as for Marx in *Capital* Volume 2, the problem is to *match* the production of exchange value and the production of use value.¹⁴⁸ How is it that under advanced capitalism, operating on the logic of exchange value, capitalists produce use values in accordance with society's capacity to consume? Again the state is invoked to ensure that correspondence. Braverman explicitly assumes the correspondence to be unproblematic.

André Gorz points to the tensions between the expansion and content of education on one hand and the very processes of deskilling to which Braverman refers on the other. Poulantzas and Gramsci are concerned with a different problem, but the logic is the same. Given the history of class struggles in Western and Mediterranean Europe, how is it that capitalism has consistently managed to absorb or repel those struggles? Both writers, in their different ways, attempt to understand how class struggles are organized within the confines of capitalism, how the state relates to different classes, and how different classes are organized in the political arena.¹⁴⁹ Braverman, on the other hand, takes for granted the capacity of capitalism to survive class struggles, and dismisses these as ineffectual outbursts signifying capitalism's inhumanity.

For Braverman, then, the expressive totality designates the subordination of society to capital, so that everything appears functional to capital. There are no dysfunctional elements, tensions or crises, only a widening gap between what *is* and what is possible.¹⁵⁰ It is true that the contrary analyses cited above have a mechanical air: a 'contradiction' is discovered, a crisis tendency unveiled, and the state is called in, like the plumber, to seal the functional gap. Yet even they are a major advance on the functional automatism of the expressive totality, which asserts the identity of cause and outcome. Poulantzas,

Habermas, Offe and O'Connor all uncouple cause and outcome by suggesting that certain outcomes are problematic, that they are by no means natural and inevitable under capitalism, and that they can be ensured only by the activation of certain mechanisms located in the state.

Future research could attempt to develop this essentially functionalist paradigm in four ways. First, a more careful analysis is required of actual tendencies of the capitalist mode of production — the contradictions and crises it promotes. We already have a choice — for example, the falling rate of profit, the absorption of surplus, the matching of exchange and use values. Second, the mechanisms have to be identified which stabilize, contain, control, absorb or cushion the proposed crisis tendencies or contradictions. Third, it has to be shown under what conditions those mechanisms will be activated to counteract the developing crises or contradictions — a problem that intimately involves struggle and the way it is shaped by politics and ideology. Fourth, we have to elucidate the circumstances under which these mechanisms in fact have the capacity to offset crises or contradictions. Obviously this is no easy agenda! But it is a *sine qua non* if we are to understand the potential for change, for bridging the chasm between what is and what could be.

Now, it may be objected that Braverman only rewrote the first volume of *Capital*, not all three. Yet one cannot avoid drawing political implications from Braverman's exclusive concern with an expressive totality. For this leaves out, as I have repeatedly stated, a consideration of the conditions of existence of that domination, and therefore the *possibility* that the domination may be precarious.¹⁵¹ Ironically (or paradoxically) we note here the *convergence* of critical and 'traditional' theory. Critical theory, inasmuch as it embraces an expressive totality, offers only a partial view of the world and, for the very reasons Lukács and Horkheimer elaborate in connection with traditional theory or bourgeois science, cannot but conclude that the world of capitalism is essentially durable. Both types of theory ignore the presuppositions of that world, the linkages of the structured totality.¹⁵²

But critical theory distinguishes itself from traditional theory, in this connection at least, in that the one applauds what the other condemns. Critique therefore involves the assertion that the domination of capital systematically creates the potential for an alternative society only to the extent that it equally systematically prevents its realization. However, this formulation, and all the pessimism, fatalism and despair that go along with it, are embedded in the very

partiality of the standpoint it adopts. It is a matter of taking the standpoint not just of the totality, but of two totalities, of domination and the conditions of domination, of essence and determination — in short, of the *expressive totality and the structured totality*.

Let Gramsci have the last words on the importance of penetrating the *appearances* of inevitability and durability to reach their *conditions*: 'One may say that no real movement becomes aware of its global character all at once, but only gradually through experience — in other words, when it learns from the facts that nothing which exists is natural (in the non-habitual sense of the word), but rather exists because of the existence of certain conditions, whose disappearance cannot remain without consequences. Thus, the movement perfects itself, loses its arbitrary, "symbiotic" traits, becomes truly independent, in the sense that in order to produce certain results it creates the necessary preconditions, and indeed devotes all its forces to the creation of these preconditions.'¹⁵³

Thus the strength, the plausibility of *Labour and Monopoly Capital* is an eloquent testimony to the power of ideology: in normal times it is more convincing to negate appearances than to explain them. Clearly these are not separate tasks.

6. The Specificity of the United States

In pointing to the shortcomings of Braverman's analysis, I have also proposed an alternative approach. In section 2, it was suggested that the simultaneous obscuring and securing of surplus, rather than the separation of conception and execution, constitutes the essence of the capitalist labour process. In section 3 it was proposed that the object-subject framework was inappropriate for the examination of capitalist control. In its stead I presented a framework that distinguishes three realms of the process of production.¹⁵⁴ I indicated how in combination these realms define the transformation of labour power into labour — the labour process — and how this shapes the form of struggles that in turn reshape (within limits) the nature of the labour process. In section 4, I suggested that Braverman's critique of capitalism, based on the ideal of craft autonomy, leads to a narrow vision of socialism. The transformation of relations in production and the transition to socialism, I argued, cannot be conceived outside the transformation of relations of production. In section 5, I suggested that Braverman's expressive totality fails to establish what that totality actually is or how it hangs together, and therefore succumbs to the illusion of

appearances, of durability. As an alternative, I argued that it is first necessary to construct the totality by examining the conditions of existence of one part — the mode of production — and that only then can one examine the domination of the whole over the parts. That is, first one examines how the part determines the totality; then and only then can one study how the part dominates the totality.

But it is not enough to present an alternative. If a theory is to go beyond Braverman, it must explain Braverman. Following Marx's treatment of classical political economy, this involves two stages. First, the theory must be able to identify the limitations of *Labour and Monopoly Capital* as the product of a particular set of social and historical conditions — of a particular time and place. Second, it must be able to explain these conditions themselves.

Americanism and Fordism

The partiality of Braverman's study — that is, its concern with the destruction of the craft worker and the domination of capital as it is expressed throughout society — reflects the distinctiveness of capitalism in the United States. In 'Americanism and Fordism' Gramsci prefigures and places in a broader context the significance of work such as Braverman's.

The American phenomenon . . . is . . . the biggest collective effort to date to create, with unprecedented speed, and with a consciousness of purpose unmatched in history, a new type of worker and of man. The expression 'consciousness of purpose' might appear humorous to say the least to anyone who recalls Taylor's phrase about the 'trained gorilla'. Taylor is in fact expressing with brutal cynicism the purpose of American society — developing in the worker to the highest degree automatic and mechanical attitudes, breaking up the old psycho-physical nexus of qualified professional work, which demands a certain active participation of intelligence, fantasy and initiative on the part of the worker, and reducing productive operations exclusively to the mechanical, physical aspects. But these things, in reality, are not original or novel; they represent simply the most recent phase of a long process which began with industrialism itself. This phase is more intense than preceding phases, and manifests itself in more brutal forms, but it is a phase which will itself be superseded by the creation of a psycho-physical nexus of a new type, both different from its predecessors and undoubtedly superior. A forced selection will ineluctably take place; a part of the old working class will be pitilessly eliminated from the world of labour, and perhaps from the world *tout court*.¹⁵⁵

Here we have Braverman's thesis in a nutshell: the separation of conception and execution, the destruction of the craft worker, the effects of Taylorism and mechanization, the habituation of the worker — in short, the untrammelled domination of labour by capital.

There are other passages where Gramsci talks about the invasion of Taylorism into family and sexual life as well as community life — for example, with prohibition. In short, he discusses the reproduction of a new form of labour power. But Gramsci identifies this as a purely American phenomenon, and is ambivalent about its entering Europe. 'America does not have "great historical and cultural traditions"; but neither does it have this leaden burden to support. This is one of the main reasons (and certainly more important than its so-called natural wealth) for its formidable accumulation of capital which has taken place in spite of the superior living standard enjoyed by the popular classes compared with Europe. The non-existence of viscous parasitic sedimentations left behind by past phases of history has allowed industry, and commerce in particular, to develop on a sound basis.'¹⁵⁶

So Gramsci is already laying out what is specific to the social formation of the United States — namely, the relative absence of precapitalist modes of production. But how is this linked to the domination by capital of labour and of society in general? 'Since these preliminary conditions existed, already rendered rational by historical evolution, it was relatively easy to rationalize production and labour by a skilful combination of force (destruction of working-class trade unionism on a territorial basis) and persuasion (high wages, various social benefits, extremely subtle ideological and political propaganda) and thus succeed in making the whole life of the nation revolve around production. Hegemony here is born in the factory and requires for its exercise only a minute quantity of professional political and ideological intermediaries. The phenomenon of the "masses" which so struck Romier is nothing but the form taken by this "rationalized" society in which the "structure" dominates the superstructures more immediately and in which the latter are also "rationalized" (simplified and reduced in number).'¹⁵⁷

But how is hegemony born in the factory? How does the economic dominate the other realms of the social structure? What is the nature of the class domination that allows Braverman to de-emphasize struggle or resistance to Taylorism and mechanization while elevating the power of capital?

The Labour Process and International Capitalism

A number of well-known theories draw attention to the geographical specificity of what Braverman projects as the attributes of capitalism in general. There are the theories of corporate liberalism that dwell on the relationship of the dominant classes to the state. In the United States, it is argued, an enlightened 'hegemonic' fraction has emerged from the dominant classes to direct the operation of the state for the development of monopoly capital by presenting its interests as the interests of all. Then there are the theories of the open frontier and immigrant populations that explain the 'unmaking' of the American working class and its weakness in the face of capitalism's expansion.

While both types of theory obviously illuminate much about the specificity of the United States, I want to sketch an alternative account that might be of more immediate applicability to the understanding of the capitalist labour process in different places at different times. Briefly, my hypothesis is that the period in which capitalism begins to consolidate itself in a given social formation determines the relative timing of struggle, in particular of unionization and mechanization. This temporal sequence in turn governs the development of the labour process. I will illustrate the argument with the examples of Japan, the United States and Britain.¹⁵⁸

Ronald Dore, in his study of similar corporations in Britain and Japan, has drawn out basic differences in the organization of production. To summarize his conclusions, we may say that whereas at English Electric workers were individualistic and class-conscious, at Hitachi they saw their own interests as coinciding to a greater extent with those of the enterprise. British workers also exercised greater control over the labour process than Japanese workers. Dore attributes many of the differences to Japan's late development. Here I want to isolate two elements of his theory as of particular importance in determining the rise of the enterprise: the effect of late development on class struggle and technology, and the temporal relationship between these. In Britain a powerful working class was forged in struggles against the excesses of the industrial revolution, and to some extent against capitalism itself, as well as in the struggles for political rights. These struggles laid the basis of a strong trade-union movement prior to the transition from competitive to monopoly capitalism — that is, prior to the rise of the large corporation and the scientific-technical revolution. From the rise of trade unionism to this day, British workers, through militant shopfloor organizations, have distinguished themselves in resisting, though by no means success-

fully, the expropriation of control over the labour process.

In Japan capitalism took root much later, with advanced technology that had already been developed in other countries and when political and economic rights were understood as part and parcel of capitalism. Although there was considerable class struggle in Japan over the development of unionization, unions were effective organizations only after the emergence of and within large corporations. In other words, they consolidated themselves after the expropriation of skills. The labour process developed more through institutionalized patterns of collective bargaining than through militant shopfloor struggles. The political apparatuses of production, controlled from above rather than below, coordinated the interests of labour and capital. Moreover, given the capital intensiveness of the labour process, labour costs were relatively low and concessions were correspondingly easier to make without jeopardizing profits.

The United States appears on a continuum between Japan and Britain, owing to the consolidation of capitalism at an intermediary stage in the history of international capitalism. Because political rights rarely became the subject of militant protest, economic struggles, although violent and intense, did not produce a strong working class, as in England.

The timing of unionization shapes the development of the labour process not only in the monopoly sector but also in the competitive sector. Braverman depicts the penetration of capital throughout the economy, but has little to say about the specific sectoral forms of the labour process beyond noting that they are subject to the same expropriation of skill. Where unionization is consolidated after the transition from competitive to monopoly capitalism, it generally takes root most firmly in the monopoly sector, as in Japan and the United States. Concessions made to labour in that sector can be pushed onto the consumer — and onto the weaker competitive capitalists, who in turn seek to protect their profit margins by squeezing their workers. Rising wages, unionization and security of employment in one sector create their opposites in other sectors. The characteristic dualism of the United States and Japan can be attributed to the absence of a strong industrial unionism prior to the emergence of large corporations.

By contrast, in Britain and other European countries the dualism is less pronounced because of the strength of industrial unionism prior to the transition to monopoly capitalism. The competitive sector, because of effective resistance from unions, was less able to absorb costs externalized by the monopoly sector.¹⁵⁹

In these extremely speculative remarks I am only trying to suggest,

first, that there *are* variations in the labour process and particularly its political regime both within a given capitalist society and between capitalist societies; and, second, that these variations may be understood in terms of the historical constellation of struggles and competition as shaped by insertion into world capitalism. In reducing the first to lags in the development of the separation of conception and execution, Braverman misses the significance of the second. That is, by presenting capitalism as a monolith, Braverman denies the importance of variation and preempts the study of those forces which maintain or undermine existing forms of work organization. In concealing the preconditions of capital's dominance, Braverman's analysis expresses the United States experience. But where the power of capital is that much greater and the pockets of resistance are that much weaker, it becomes even more important to penetrate the ideology of domination to its presuppositions, if we are to avoid submission to appearances. It is not enough, as though in despair, to point to the widening gap between what is and what could be; we must also gain a sense of how that gap may be bridged. And this may be achieved in part through directly political practice, and in part through a broadening of our studies to encompass the conditions and limits of variation. This is what Gramsci sees in Machiavelli.

Guicciardini represents a step backwards in political science with respect to Machiavelli. This is all that Guicciardini's greater 'pessimism' means. Guicciardini regressed to a purely Italian political thought, whereas Machiavelli had attained a European thought. It is impossible to understand Machiavelli without taking into account the fact that he subsumed Italian experience into European (in his day synonymous with international) experience: his 'will' would have been utopian, were it not for the European experience.¹⁶⁰

But when all is said and done, and Machiavelli and Gramsci notwithstanding, does Braverman emerge unscathed? To be sure, he promotes pessimism, but perhaps not fatalism. To be sure, he does not bridge reality and potentiality, yet he does excite a refusal to be implicated. His is a tragic vision that represses what is possible rather than an ideological vision that represses what is impossible. There are no false promises. Braverman does not present a new revolutionary gospel, a new revolutionary strategy, a new revolutionary crisis, a new revolutionary contradiction, or even a new revolutionary subject. Capitalism is not an assemblage of interconnected parts in which the death of one implies the death of all. It is a totality, in which each part is implicated in every other. Rejection cannot be partial or strategic, but, like capitalism itself, must be total.

Notes

1. Harry Braverman, *Labour and Monopoly Capital: The Degradation of Work in the Twentieth Century*, New York 1974, p. 9.
2. Cambridge, Massachusetts 1971.
3. For a review of *Labour and Monopoly Capital* that picks up on the same tension but draws very different conclusions, see Russell Jacoby, 'Harry Braverman, *Labour and Monopoly Capital*', *Telos*, no. 29, Fall 1976, pp. 199-208.
4. Braverman, pp. 60, 120, 172.
5. Cited in David Montgomery, 'Workers' Control of Machine Production in the Nineteenth Century', *Labour History*, no. 17, Fall 1976, p. 485.
6. Braverman, p. 126.
7. *Ibid.*, pp. 45-49, 113.
8. *Ibid.*, pp. 229-33.
9. *Ibid.*, p. 27.
10. Critical theorists such as Adorno, Horkheimer and Marcuse as well as Reich have tried to rescue the object-subject framework by using psychoanalysis to explain the destruction of subjectivity and the eclipse of the individual under capitalism. This 'negative psychoanalysis', as Jacoby calls it, is therefore a theory of the 'subjectless subject'. It is this psychological rather than philosophical dimension of subjectivity that is missing from the 'class in itself versus class for itself' problematic of both Lukács and Korsch. See Russell Jacoby, 'Negative Psychoanalysis and Marxism', *Telos*, no. 14, Winter 1972, pp. 1-22. However, the addition of such a psychological dimension to *Labour and Monopoly Capital* would not affect its argument or conclusions but merely reinforce them at another level of analysis.
11. Braverman, pp. 233, xiii (foreword by Paul Sweezy).
12. *Ibid.*, pp. 27, 150.
13. The problem can be traced back to Durkheim and Weber. For Durkheim social control was activated more or less in response to pathologies and coordination. At the basis of social control was an *assumption* of consensus. We see the heritage in Parsons and the human relations school of industrial sociology. For Weber social control was ubiquitous — a mode of domination. But it is not clear why that domination is necessary. The typologies he constructs possess a transhistorical character even if they prevail in different historical periods. Their elaboration in organization theory has been more systematically carried out by Amitai Etzioni, in *A Comparative Analysis of Complex Organizations*, New York 1961.
14. Braverman, pp. 57-58.
15. *Ibid.*, pp. 30, 57, 68, 86, 120, 125, 267, and *passim*.
16. *Ibid.*, p. 57.
17. Marx makes the same argument in a number of other places. 'Economic conditions had first transformed the mass of the people of the country into workers. The combination of capital has created for this mass a common situation, common interests. This mass is thus already a class against capital, but not yet for itself. In the struggle, of which we have noted only a few phases, this mass becomes united, and constitutes itself as a class for itself. The interests it defends become class interests. But the struggle of class against class is a political struggle' (*The Poverty of Philosophy*, New York 1963, p. 173). In *The German Ideology* (Moscow 1968, p. 78), there is a footnote attributed to Marx: 'Competition separates individuals from one another, not only the bourgeois but still more the workers, in spite of the fact that it brings them together. Hence it is a long time before these individuals can unite, apart from the fact that for the purposes of this union — if it is not to be merely local — the necessary means, the great industrial cities and cheap and quick communications, have first to be produced by big industry. Hence every organized power standing over against these isolated individuals, who live in

relationships daily reproducing this isolation, can only be overcome after long struggles. To demand the opposite would be tantamount to demanding that competition should not exist in this definite epoch of history, or that the individuals should banish from their minds relationships over which in their isolation they have no control.'

18. As Marx and Engels write in *The Communist Manifesto* (in *The Revolutions of 1848*, Harmondsworth 1973, pp. 75, 79): 'But with the development of industry the proletariat not only increases in number; it becomes concentrated in greater masses, its strength grows, and it feels that strength more. The various interests and conditions of life within the ranks of the proletariat are more and more equalized, in proportion as machinery obliterates all distinctions of labour, and nearly everywhere reduces wages to the same low level. . . . The advance of industry, whose involuntary promoter is the bourgeoisie, replaces the isolation of the labourers, due to competition, by their revolutionary combination, due to association.'

19. From 'Wage Labour and Capital', in Robert Tucker, ed., *The Marx-Engels Reader*, New York 1972, p. 184. The non-zero-sum nature of working-class struggle must also be seen as a historically emergent feature of monopoly capitalism. Under early capitalism conflict between labour and capital was more usually zero-sum in terms of both use value and exchange value.

20. Braverman also recognizes the possibility of extending concessions to the working class when he talks about Ford and the five-dollar day (p. 149), but he misses its more widespread significance: that by increasing 'efficiency' of production, capitalism has been able continually to increase the standard of living of large sectors of the labour force without threatening its profitability.

21. Braverman in fact talks at one point about the linkage of short-term and long-term interests deep below the surface (pp. 29-30). But this isolated comment appears more as an act of faith than as a true bridge between two types of interests. As we shall see in the next section of this chapter, once we accept the possibility of the concrete coordination of the interests of capitalists and workers, the class-in-itself/class-for-itself model as well as its companion model of base-superstructure no longer retain their original plausibility or usefulness.

22. There is now an ever-burgeoning debate over the use of the concept 'mode of production'. Jairus Banaji's argument that one cannot reduce relations of production to a mode of expropriation is convincing ('Modes of Production in a Materialist Conception of History', *Capital and Class*, no. 3, Autumn 1977, pp. 1-44). Also convincing is Perry Anderson's insistence that 'pre-capitalist modes of production cannot be defined except via their political, legal and ideological superstructures, since these are what determine the type of extra-economic coercion that specifies them' (*Lineages of the Absolutist State*, NLB, London 1974, p. 404). See also Robert Brenner, 'The Origins of Capitalist Development: A Critique of Neo-Smithian Marxism', *New Left Review*, no. 104, July-August 1977, pp. 25-93; Barry Hindess and Paul Hirst, *Pre-Capitalist Modes of Production*, London 1975; Ernesto Laclau, 'Feudalism and Capitalism in Latin America', *New Left Review*, no. 67, 1971, pp. 19-38; and the classic set of essays in Rodney Hilton, ed., *The Transition from Feudalism to Capitalism*, NLB, London 1976. The concerns of these writers reflect the particular problems they are studying, and many of the debates would dissipate if this were made clearer. Since I am here not particularly concerned with feudalism as a concrete historical formation — with the feudal state, with the laws of motion of the feudal mode of production, or with the transition from feudalism to capitalism — what I have to say is not directly affected by the various debates.

23. 'The Basic Concepts of Historical Materialism', in Louis Althusser and Etienne

Balibar, eds., *Reading Capital*, New York 1970, pp. 209-24.

24. I deliberately use the term *relations in production* and not *forces of production* because I want to stress that I am talking about social relations and not an itemized set of 'things'. This has two major implications. First, the substitution of relations in production moves away from the optimistic teleology in Marx's notion of the development of the forces of production. Second, relations in production cannot be taken as given. To the contrary, just as relations of production must be reproduced so must relations in production. This crucial feature of any mode of production has been consistently overlooked through the use of the concept 'forces of production'.

25. Banaji remarks: 'If we now ask, which of these forms constituted the classical or fully developed structure of the feudal enterprise, the answer should not be difficult: the enterprise only "crystallized", that is, acquired its classical structure, when the ratio of the peasants necessary to surplus labour-time was directly reflected in the distribution of arable land between demesne and peasant holding. In other words, the form of organization of the labour-process specific to the feudal mode of production in its developed form would be one which permitted the lord to assert complete control over the labour-process itself — in which the peasant holdings assumed the form of, and functioned as, a sector of simple reproduction' (p. 19). Banaji goes on to argue that in fact this fully developed form appeared only when the feudal estate was a commodity-producing enterprise and became predominant only in the grain-exporting countries of Eastern Europe during the 'second serfdom' (pp. 19, 22-27).

26. As is widely recognized, this is very often not the case as when, for example, the water mill was introduced (Marc Bloch, *Land and Work in Medieval Europe*, Berkeley 1967, chapter 2). See also Hindess and Hirst, chapter 5.

27. See, e.g., Hilda Behrend, 'The Effort Bargain', *Industrial and Labour Relations Review*, no. 10, 1957, pp. 503-15; and William Baldamus, *Efficiency and Effort*, London 1961.

28. The assumption is that if the capitalist wanted to reveal the surplus by distinguishing it from necessary labour (and if this were possible!), then we would be back in feudalism where an extra-economic element would be necessary to guide the production cycle. I am also focusing here exclusively on the way capitalists cope with the problem in terms of the organization of work. Obviously they also try to seek solutions in the control of prices in the market; but that is another story.

29. The distinction being made here is one on which Marx also insists, the distinction between the production of things, or use value, and the production of surplus value, or exchange value. The distinction is embodied in the two aspects of the production process, the labour process and the valorization process. It is the labour process that workers experience under capitalism, while the valorization process is removed from the point of production and does not appear as such, but only in its effects. That is, workers look upon themselves as producing things rather than profit. The separation between labour process and valorization process parallels that between relations in production and relations of production. See Karl Marx, *Capital* Volume 1, Harmondsworth 1976, pp. 283-306, 949-1060.

30. Lukács, p. 90.

31. See, e.g., Stephen Marglin, 'What Do Bosses Do? The Origins and Functions of Hierarchy in Capitalist Production', *The Review of Radical Political Economics*, no. 6, Summer 1974, pp. 60-112; Katherine Stone, 'The Origins of Job Structures in the Steel Industry', *The Review of Radical Political Economics*, no. 6, Summer 1974, 113-73; David Brody, *Steelworkers in America: The Non-Union Era*, Cambridge, Massachusetts 1960; Stanley Aronowitz, *False Promises: The Shaping of American Working-Class Consciousness*, New York 1973; and André Gorz, ed., *The Division of Labour*, Atlantic

Highlands, New Jersey 1976.

32. See, e.g., Alvin Gouldner, *Patterns of Industrial Bureaucracy*, New York 1954; and Richard Edwards, 'The Social Relations of Production in the Firm and Labour Market Structure', *Politics and Society*, no. 5, 1975, pp. 83-108.

33. Braverman, pp. 124-25. Braverman also writes: 'Technical capacities are henceforth distributed on a strict "need to know" basis. The generalized distribution of knowledge of the productive process among all its participants becomes, from this point on, not merely "unnecessary", but a positive barrier to the functioning of the capitalist mode of production' (p. 82).

34. Lukács, pp. 24, 80.

35. 'What Is to Be Done?' in Lenin, *Selected Works*, 3 vols., Moscow 1963, vol. 1, p. 152.

36. Marx, for example, writes: 'The production of surplus value, or the making of profits, is the absolute law of this mode of production. Labour-power can only be sold to the extent that it preserves and maintains the means of production as capital, reproduces its own value as capital, and provides a source of additional capital in the shape of unpaid labour. The conditions of its sale, whether more or less favourable to the labourer, include therefore the necessity of its constant re-sale, and the constantly extended reproduction of wealth as capital. Wages, as we have seen, imply by their very nature, that the worker will always provide a certain quantity of unpaid labour. Even if we leave aside the case where a rise of wages is accompanied by a fall in the price of labour, it is clear that at the best of times an increase in wages means only a quantitative reduction in the amount of unpaid labour the worker has to supply. This reduction can never go so far as to threaten the system itself' (*Capital* Volume 1, pp. 618-19). But the question remains: how is the labour process organized so as to prevent that reduction which threatens the system? How is unpaid labour possible under advanced capitalism? It is a matter of the reproduction not merely of relations of production but also of relations *in* production. Again, Marx and Marxists have tended to take this for granted.

37. Braverman, p. 56.

38. Marx himself, in his analysis of the struggles over the working day, pointed to the role of 'force' in determining the amount of unpaid labour time the capitalist can command. 'There is here therefore an antinomy, of right against right, both equally bearing the seal of the law of exchange. Between equal rights, force decides. Hence, in the history of capitalist production, the establishment of a norm for the working-day presents itself as a struggle over the limits of that day, a struggle between collective capital, i.e., the class of capitalists, and collective labour, i.e., the working-class' (*Capital* Volume 1, p. 344). A key to the understanding of the development of capitalism lies in the transformation of such zero-sum conflicts into non-zero-sum conflicts, in which struggle comes to be organized around the distribution of marginal increments of use value.

39. Braverman, p. 97.

40. In this respect capitalism can be compared to slavery, in that the survival of the slave is intimately bound up with the survival of the slaveowner. And, as Eugene Genovese shows in *Roll, Jordan, Roll* (New York 1974), the paternalistic character of master-slave relations provides a mechanism through which slaves are able to turn privileges into rights, that is, to extract concessions.

41. Antonio Gramsci has laid the foundation for this view: 'Undoubtedly the fact of hegemony presupposes that account be taken of the interests and tendencies of the groups over which hegemony is to be exercised, and that a certain compromise equilibrium should be formed — in other words, that the leading groups should make sacrifices of an economic-corporate kind. But there is also no doubt that such sacrifices

and such a compromise cannot touch the essential; for though hegemony is ethical-political, it must also be economic, must necessarily be based on the decisive function exercised by the leading group in the decisive nucleus of economic activity (*Selections from the Prison Notebooks*, edited and translated by Quintin Hoare and Geoffrey Nowell-Smith, London 1971, p. 161). Adam Przeworski, in 'Material Bases of Consent: Economics and Politics in a Hegemonic System' (*Political Power and Social Theory*, no. 1, 1980, pp. 21-66), takes this and other ideas of Gramsci's as a point of departure for a theory of the durability of capitalist societies.

42. Braverman, pp. 180, 182, 171.

43. *Ibid.*, p. 182.

44. *Ibid.*, p. 27.

45. *Ibid.*, p. 141.

46. *Ibid.*, p. 29.

47. Braverman's relationship to industrial sociology warrants a study unto itself. But let me make a few comments. Undoubtedly, Braverman performs a crucial task in demystifying many widely held assumptions such as the historical tendency toward increasing skill involved in industrial occupations (chapter 20). Needless to say, his focus on control, expressed through the expropriation of skill and knowledge, is a major contribution. He puts to excellent use the works of managerial practitioners (from industry or business schools) to substantiate his analysis, although, not surprisingly, his view of the labour process has a top-down bias. He extracts the rational kernel from 'business science', and in so doing recognizes that it both conceals and *expresses* a hidden reality.

Yet at the same time he adopts a very crude ideology-science distinction between industrial sociology and Marxism, or rather his own 'critical' Marxism. This, of course, may be attributable to his personal experiences as a worker, but his stance is unfortunate. By extracting from them their 'rational kernel', he could have put to good use the many celebrated works of industrial sociology such as the Harvard studies of human relations influenced by Elton Mayo, the Columbia studies of bureaucracy influenced by Robert Merton, the Chicago studies of occupations through participant observation influenced by Everett Hughes and William Foot Whyte, and even the Berkeley studies of industrialism influenced by Clark Kerr. Whatever their ideological bias, these are studies of lasting significance. They document in rich detail much of what Braverman asserts, and even if their conclusions tend to be complacent they contain a strong 'liberative potential'. For a statement of the liberative potential of academic sociology, see Alvin Gouldner, 'A Reply to Martin Shaw: Whose Crisis?' *New Left Review*, no. 71, January-February 1972, pp. 89-96. I have attempted to resituate the major industrial sociology studies within a Marxist framework in 'The Anthropology of Industrial Work', *Annual Review of Anthropology*, vol. 8, 1979, pp. 231-66.

48. Elton Mayo, *The Human Problems of an Industrial Civilization* (New York 1933) and *The Social Problems of an Industrial Civilization* (London 1940). Mayo was the guiding inspiration behind the birth of industrial sociology as the study of human relations on the shopfloor, directing attention away from the examination of objective working conditions. Whether in the form of reaction or of elaboration, the work of his team at Harvard has had a lasting impact on the study of organizations, both industrial and other. Within this school of thought, influenced by Durkheim and Pareto, the single most important empirical study is F J Roethlisberger and William Dickson, *Management and the Worker* (Cambridge, Massachusetts 1939), which summarizes the results of the Western Electric studies.

49. See also Norman Geras, 'Marx and the Critique of Political Economy', in Robin Blackburn, ed., *Ideology in Social Science* (New York 1973), pp. 284-305; and Lucio

Colletti, *From Rousseau to Lenin* (NLB, London 1972), chapter 2.

50. The literature on the Western Electric studies is extensive. Apart from Mayo and Roethlisberger and Dickson, there are a number of critical studies. See, e.g., Clark Kerr and L.H. Fisher, 'Plant Sociology: The Elite and the Aborigines', in M. Komarovskiy, ed., *Common Frontiers of the Social Sciences* (Glencoe 1957), pp. 281-309; H.A. Landsberger, *Hawthorne Revisited* (Ithaca 1958); L. Baritz, *The Servants of Power: A History of the Use of Social Science in Industry* (New York 1965); A. Carey, 'The Hawthorne Studies: A Radical Criticism', *American Sociological Review*, no. 32, 1967, pp. 403-16.

51. Baldamus, p. 53. In writing about the attempts by Hawthorne counselors to manipulate dissatisfied workers' 'frames of reference', Daniel Bell recalls a folk tale that illustrates Baldamus's notion of relative satisfaction: 'A peasant complains to his priest that his little hut is horribly overcrowded. The priest advises him to move his cow into the house, the next week to take in his sheep, and the next week his horse. The peasant now complains even more bitterly about his lot. Then the priest advises him to let out the cow, the next week the sheep, and the next week the horse. At the end the peasant gratefully thanks the priest for lightening his burdensome life' (*The End of Ideology*, New York 1960, p. 423). Of course, workers see through such manipulations, just as they recognize that in seeking relative satisfactions they are adapting and accommodating to the coerciveness of industrial work. As Max Horkheimer and Theodor Adorno put it with reference to the culture industry: 'The triumph of advertising in the culture industry is that consumers feel compelled to buy and use its products even though they see through them' (*The Dialectic of Enlightenment*, New York 1972, p. 167). More generally, Herbert Marcuse refers to relative satisfactions as 'repressive satisfactions' or 'false needs'. 'Such needs have a societal content and function which are determined by external powers over which the individual has no control; the development and satisfaction of these needs are heteronomous. No matter how much such needs may have become the individual's own, reproduced and fortified by the conditions of his existence; no matter how much he identifies himself with them and finds himself in their satisfaction, they continue to be what they were from the beginning — the products of a society whose dominant interest demands repression' (*One-Dimensional Man*, Boston 1968, p. 5).

52. See, e.g., Huw Beynon, *Working for Ford*, London 1973; and Harvey Swados, *On the Line*, Boston 1957.

53. See, e.g., Peter Blau, *The Dynamics of Bureaucracy*, Chicago 1963; and Chester Barnard, *The Functions of the Executive*, Cambridge, Massachusetts 1938. Blau refers to work games as relieving status anxiety. Barnard talks about the informal group as an integral aspect of industrial organizations. Of course, the notion of informal group has come under much fire since then, as has its concomitant notion of informal organization. Nonetheless, it retains considerable tenacity since it is rooted in managerial ideology and expresses a presumed managerial prerogative of unilateral control over the labour process.

54. *Money and Motivation*, New York 1955, p. 38. Donald Roy probably made the first extensive foray into the study of work games, and his essays are now among the classics of industrial sociology. He has argued that games are an inevitable and ubiquitous form of adaptation to industrial work, offering a variety of social, psychological and physiological rewards as well as adversely affecting output. See Roy, '“Banana Time”: Job Satisfaction and Informal Interaction', *Human Organization*, no. 18, 1958, pp. 158-68; 'Work Satisfaction and Social Reward in Quota Achievement', *American Sociological Review*, no. 18, October 1953, pp. 507-14; and 'Quota Restriction and Gold-bricking in a Machine Shop', *American Journal of Sociology*, no. 57, March 1952, pp. 427-42.

55. Michael Crozier, *The Bureaucratic Phenomenon*, Chicago 1964. On the other hand Jason Dittton argues that games that emerge from uncertainty or ill-defined norms enhance the power of management at the expense of workers. See Dittton, 'Perks, Pilferage, and the Fiddle', *Theory and Society*, no. 4, 1977, pp. 39-71; and 'Moral Horror versus Folk Terror: Output Restriction, Class and the Social Organization of Exploitation', *The Sociological Review*, no. 24, August 1976, pp. 519-44.

56. *The Human Group*, New York 1950. Elton Mayo takes a similar position when he writes of the emergence of a 'non-logical social code' or a 'social code at a lower level and in opposition to the economic logic' (*Human Problems*, p. 116). In a similar vein, although from a different theoretical perspective, James O'Connor regards games as an expression of class struggle over labour time. 'They are part of the process of dis-accumulation' ('Productive and Unproductive Labour', *Politics and Society*, no. 5, 1975, pp. 297-336).

57. A problem arises as to the origin of the preference orderings themselves. Are they inscribed in the game or imported from outside? What does one say about those people who play chess to 'lose'? It clearly becomes a different game! What happens when different players bring with them different utility curves? Or are utility curves fashioned at the point of production in a common system of values?

58. By emphasizing the coercive 'objective' features of work, Braverman misses the importance of these 'relative' freedoms, and the change in the character of freedom. As Max Horkheimer argues: 'For the average man self-preservation has become dependent upon the speed of his reflexes. Reason itself becomes identical with this adjustive facility. It may seem that present-day man has a much freer choice than his ancestors had, and in a certain sense he has. . . . The importance of this historical development must not be underestimated; but before interpreting the multiplication of choices as an increase in freedom, as is done by the enthusiasts of assembly-line production, we must take into account the pressure inseparable from this increase and the change in quality that is concomitant with this new kind of choice. The pressure consists in the continual coercion that modern social conditions put upon everyone; the change may be illustrated by the difference between a craftsman of the old type, who selected the proper tool for a delicate piece of work, and the worker of today, who must decide quickly which of many levers or switches he should pull . . . the accretion of freedom has brought about a change in the character of freedom' (*Eclipse of Reason*, New York 1974, pp. 97-98).

Or as Marcuse puts it: 'The range of choice open to the individual is not the decisive factor in determining the degree of freedom, but *what* can be chosen and *what is* chosen by the individual' (*One-Dimensional Man*, p. 7). Although 'choice' may have diminishing relevance to the realization of human needs, critical theory emphasizes that it still remains. Indeed, we are forced to make choices. It is that act of 'choosing' that moulds participation within capitalist society and generates consent to its relations.

59. A fundamental distinction must be made between those who believe with Talcott Parsons that playing games, entering into exchange relations, and so forth rest on a prior *consensus*, and the position adopted here that it is the very participation in the game that generates *consent* to its rules.

60. Frequently games organized on the shopfloor have their own evolutionary dynamics that tend toward the undermining of managerial objectives. Thus, both Donald Roy ('Restriction of Output in a Piecework Machine Shop', Ph.D. dissertation, University of Chicago, 1952) and I have observed how the game of 'making out' enacted in a machine shop gradually causes the organization of work to drift in the direction of chaos. In the process of playing 'making out', mounting pressures lead to the relaxation of rules under the noncommittal and sometimes condoning eyes of the foreman, until higher management steps in to reimpose the original rules, when the cycle begins again.

Blau describes similar tendencies in the responses of workers in a state employment agency. He shows how the introduction of new rules generates competition among workers to increase individual output while the collective effect is to reduce efficiency. That is, the game itself produces conditions that make it more difficult to play the game. This contradiction is inscribed in the organization of work. Blau writes: 'This poses the interesting question, which cannot be answered here: What conditions determine whether this process ultimately levels off or reaches a climax in a revolutionary transformation of the competitive structure into a cooperative one?' p. 81). In other words, while games constructed on the shopfloor may produce consent to the rules and conditions that define them, at the same time they can sow the seeds of their own destruction through generating increased struggle with management. From my own experience and research, the existence and form of games on the shopfloor become the object of struggle not only between workers and management but also between different levels and fractions within management.

61. Throughout this section I have referred to the response of workers as 'adaptation' rather than 'resistance'. Both must be distinguished from Braverman's 'habituation', which implies no creative response but rather a mechanistic absorption into the environment, an extreme form of objectification that eliminates that crucial subjective moment implied by adaptation and resistance. In some respects my position is similar to Genovese's emphasis in *Roll, Jordan, Roll* on the way slaves shaped a world of their own through the manipulation of paternalism within the confines of slavery. But Genovese deliberately talks about resistance rather than adaptation, in order to provide a corrective to earlier studies of slavery. Like Braverman, these emphasized the destructive and degrading effects of slavery, conceived of as a 'total' or 'totalitarian' institution that permitted no outlets for creative subjectivity. Genovese further distinguishes between forms of resistance that constituted accommodation to slavery, as occurred in the ante-bellum South, and those that constituted a rejection of slavery through slave revolts, as occurred more frequently in Latin America and the Caribbean. According to Genovese, the type of religion slaves were able to create for themselves was a critical factor in the move from resistance to rebellion. An analogous exploration of resistance by workers under capitalism could be developed. Under what conditions does resistance lead to reconciliation with capitalism and under what conditions to struggles against it?

In this chapter, however, I have preferred to talk about worker responses in terms of adaptation, where Genovese, Edward Thompson and others might have used resistance. Words are not innocent. We have already noted the ambivalence of industrial sociology as to whether games are a form of adaptation or of resistance. From the point of view of the transformation of capitalism, I have argued that the worker responses I have been describing are ideological mechanisms through which workers are sucked into accepting what is as natural and inevitable. I find it difficult to talk of these as modes of resistance to capitalism, although they may be necessary for resistance. Rather, as Paul Piccone has pointed out, they are the arenas of subjectivity without which advanced capitalism cannot operate effectively ('From Tragedy to Farce: The Return of Critical Theory', *New German Critique*, no. 7, Winter 1976, pp. 91-104). Genovese's question then becomes, under what conditions do these fragmented arenas of subjectivity expand into collective struggle, or, more narrowly, under what conditions does adaptation turn into resistance? I will discuss resistance and struggle over the form of the labour process in the following sections.

62. Not only does the act of transforming raw materials into things (economic activities or practices) have ideological and political effects, but there exists at the point of production a set of political and ideological institutions or apparatuses of production.

The significance of the latter will become clearer in subsequent chapters of this book.

63. Braverman's very different view is expressed in the following passage: 'The variety of determinate forms of labour may affect the consciousness, cohesiveness, or economic and political activity of the working class, but they do not affect its existence as a class' (p. 410).

64. See Nicos Poulantzas, *Political Power and Social Classes*, NLB London 1973; Etienne Balibar, *On the Dictatorship of the Proletariat* NLB London 1977; and Adam Przeworski, 'The Process of Class Formation: From Karl Kautsky's Class Struggle to Recent Controversies', *Politics and Society*, vol. 7, no. 4, 1977, pp. 343-401.

65. 'The Peculiarities of the English', *Socialist Register*, 1965, p. 356. Of course, Thompson's *The Making of the English Working Class* (London 1963) is the classical elaboration of this view. It offers a very different perspective from that of Poulantzas and Przeworski in that it pays relatively little attention to the way the working class was shaped from above by pre-existing economic, political and ideological institutions. Rather, it is concerned with the process of and resistance to proletarianization — that is, the separation of labourers from the means of production, of labour from labour power — and not with the reformation, reorganization and restructuring that the development of capitalism forces upon the working class. Thompson's 'history from below' leads him to emphasize resistance, where Braverman, dealing with a different stage in the history of capitalism, emphasizes habituation. In this respect Poulantzas, Przeworski and I tend to steer a middle road. For a critical discussion of Thompson and his reliance on 'bottom up' history see Tom Nairn, 'The English Working Class', in Blackburn, pp. 187-206.

66. Braverman, pp. 85, 110, 171.

67. *Ibid.*, p. 119.

68. One might note that it took Taylor two to three years to implement the changes at Midvale, even though he had complete management support and the advantage of having been a worker himself. Neither condition generally holds for the agents of scientific management. Furthermore, from the description of what happened it appears that the workers' resistance in this case was unusually spineless. And then, of course, we don't know what actually happened. Like so many of Taylor's descriptions it has a hollow ring to it.

69. Braverman, p. 139.

70. Blau describes the way this can happen and with what results in his study of the welfare agency, which is subject to rationalization and control. Donald Roy ('Efficiency and the Fix; Informal Intergroup Relations in a Piecework Machine Shop', *American Journal of Sociology*, no. 60, 1954, pp. 255-66) and Stanley Mathewson (*Restriction of Output among Unorganized Workers*, New York 1931) offer some graphic descriptions of workers' responses to Taylorism in industrial settings of the United States.

71. See Charles Maier, 'Between Taylorism and Technocracy: European Ideologies and the Vision of Industrial Productivity in the 1920s', *Journal of Contemporary History*, no. 5, 1970, pp. 27-61; Georges Friedmann, *Industrial Society*, New York 1955; Milton Nadworny, *Scientific Management and the Unions*, Cambridge, Massachusetts 1955; David Montgomery, 'Workers' Control of Machine Production in the Nineteenth Century', pp. 485-509; David Montgomery, 'The "New Unionism" and the Transformation of Workers' Consciousness 1909-1922', *Journal of Social History*, no. 7, 1974, pp. 509-29; Brian Palmer, 'Class, Conception and Conflict: The Thrust for Efficiency, Managerial Views of Labour and Working-Class Rebellion 1903-1922', *The Review of Radical Political Economics*, no. 7, Summer 1975, pp. 31-49; and many more. Braverman himself states that 'Taylorism raised a storm of opposition among trade unions', but its significance was limited to underlining its success in 'the gathering up of all this

scattered craft knowledge, systematizing it and concentrating it in the hands of the employer and then doling it out again only in the form of minute instructions' (p. 136).

72. Eric Hobsbawm states unequivocally that initially the introduction of payment by results as part of scientific management had the effect of extracting more work from the labourer for the same wage. But he also maintains that labour savings were halted thereafter by the resistance of operatives. If there were gains from Taylorism they were short-lived. (*Labouring Men: Studies in the History of Labour*, London 1964, chapter 17.)

73. *Managers and Workers*, Madison, Wisconsin 1975, pp. 7-75.

74. Reinhard Bendix, *Work and Authority in Industry*, New York 1963, p. 281. David Noble also argues that Taylorism and scientific management were mobilized as the ideology of a specific group of school-trained industrial engineers in their struggles with the traditional 'rule of thumb' shopfloor management. See *America by Design: Technology and the Rise of Corporate Capitalism*, New York 1977.

75. Maier, 'Between Taylorism and Technocracy'. I am grateful to Jeff Haydu for pointing this out to me for the United States. See Haydu, 'The Opposition of Ideology: Socialist Thought in the Progressive Era', unpublished manuscript, University of California, Berkeley 1976.

76. Maier writes: 'Generally during the early post-war years technocratic or engineering models of social management appealed to the newer, more syncretic, and sometimes more extreme currents of European politics. ... Later in the decade, as the American vision of productivity was divested of its more utopian implications, it came to serve a useful function for business conservatives. Between the original enthusiasm for Taylorite teachings and the later *éclat* of Fordism lay an important evolution in the ideological thrust of Americanist doctrines. In general, however, all the variants enjoyed most appeal where representative government was deemed to be working badly. Ironically enough, American productivity contributed to the critical attitude towards parliamentary liberalism. What the Americanist vision seemed to promise through its brash teachings of productivity, expertise, and optimalization was an escape from having to accept class confrontation and social division. Albeit for very different reasons, all the enthusiasts for scientific management and technological overhaul were seeking to deny the necessary existence of the pre-war model of ideological conflict and to validate a new image of class relationships' (pp. 28-29).

77. It might be argued that where the transition was most rapid and far-reaching, the crises would be more severe and the strength of scientific management as part of a reactive ideology all the stronger. This might explain the greater ideological appeal of Taylorism in the United States, as compared with a country like Britain where the transition to monopoly capitalism was more drawn out.

78. Jürgen Habermas, 'Technology and Science as "Ideology"', in *Toward a Rational Society*, Boston 1970, pp. 100-107; and Marcuse, *One-Dimensional Man*, chapters 1, 6.

79. This, of course, is the theme of Horkheimer (*Eclipse of Reason*) and of Horkheimer and Adorno (*The Dialectic of Enlightenment*). It is also the basis of Marcuse's critique of Weber (*Negations*, Boston 1968, chapter 6).

80. Habermas, pp. 98-99.

81. The criticism that follows is similar to the one leveled by Brenner at the notion of labour control in Immanuel Wallerstein's *The Modern World-System: Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century*, New York 1974. Inasmuch as Wallerstein assumes that nations or their ruling classes are free to choose the system of labour control that is most efficient given their position in the world economy, his theory is neo-Smithian in that it ignores the constraints of class struggles. See also Brenner, pp. 58-60, 81-82.

82. Braverman, pp. 120-21.

83. *Ibid.*, p. 92.

84. *Ibid.*, p. 90.

85. *Ibid.*, p. 85.

86. *Ibid.*, p. 101. But note the examples of rationalization that took place before the middle of the nineteenth century. See, e.g., Erich Roll, *An Early Experiment in Industrial Organization: Being a History of the Firm of Boulton and Watt, 1775-1805*, London 1930. However, see Braverman's comment on the firm of Boulton and Watt, *Labour and Monopoly Capital*, p. 126.

87. Braverman does note that the early users of scientific management 'had to make their way against the fears of cost-conscious managers' (pp. 126-27).

88. Hobsbawm, 'Custom, Wage and Work Load', in *Labouring Men*, pp. 344-70.

89. David Montgomery, *Workers' Control in America*, New York 1979, chapter 2.

90. See, e.g., Braverman, p. 136.

91. Montgomery, *Workers' Control in America*, chapters 1, 4.

92. I cannot resist referring to the somewhat naive but significant comments of a 1904 government report devoted to labour productivity in the United States and Great Britain: 'Information relative to the subject of output is perhaps more difficult to obtain in Great Britain than in any other country. ... It is virtually impossible among a people as individualistic and secretive as the British to arrive at any quantitative measure of the product turned out in a given time' (U.S. Bureau of Labor, Commissioner of Labor, *Regulation and Restriction of Output*, Eleventh Special Report, 1904, p. 721). Because they publicly defined levels of output in the form of rules, workers in the United States were more vulnerable to aggressive Taylorist practices than in England, where a heightened class consciousness expressed itself in secrecy.

93. See Nadworny.

94. Braverman, pp. 147, 170, 206, 236.

95. *Ibid.*, pp. 79-82.

96. *Ibid.*, p. 200 (see also fn.).

97. Bill Friedland and Amy Barton, *Destalking the Wily Tomato*, Department of Applied Behavioural Sciences, College of Agricultural and Environmental Sciences, University of California, Davis, 1975; Bob Thomas, 'Citizenship and Labour Supply: The Social Organization of Industrial Agriculture', Ph.D. dissertation, Northwestern University, 1981.

98. Braverman, p. 103.

99. A great deal of research could be profitably undertaken into the conjunctures when different industries or occupations undergo deskilling. Braverman himself acknowledges the uneven development of mechanization and Taylorism both through history and as they spread through the social structure (pp. 172, 208, 282). Much might be derived from an examination of those exceptional cases that have successfully resisted the expropriation of skill or mechanization. See, e.g., Gouldner, *Patterns of Industrial Bureaucracy*; E.L. Trist, G.W. Higgin, H. Murray and A.B. Pollock, *Organizational Choice*, London 1963; and Marglin, op.cit.; all these discuss the case of mining. See Arthur Stinchcombe, 'Bureaucratic and Craft Administration of Production: A Comparative Study', *Administrative Science Quarterly*, no. 4, 1959, pp. 168-87, for the construction industry; and Lupton, *On the Shop Floor*, and Sheila Cunnison, *Wages and Work Allocation*, London 1965, for the garment industry. Extending the ideas of Robert Blauner (in *Alienation and Freedom*, Chicago 1964) Arthur Stinchcombe has developed a theory of organizational persistence based on ideas of sunk costs, vesting of interests, and the prevention of change through competition by monopolization (Stinchcombe, 'Social Structure and Organization', in J.G. March, ed., *Handbook of Organizations*, New York 1965, pp. 142-69).

100. Braverman, p. 252.

101. There is possibly an alternative view in Braverman (pp. 169-71), but he is not clear. Part of the problem is that Braverman neither says much about the nature of the labour process under competitive capitalism nor makes clear the distinction between competitive and monopoly capitalism. See also section 5 of this chapter.

102. This is not to say that mechanization pushes itself forward without struggle. To the contrary. But once initial opposition is overcome, assuming it is, then the question becomes whether the effect of new machinery is to increase or diminish struggle. This will of course be linked to the ideological effects it promotes. It is very likely that new machinery, through its capacity to fragment, to increase 'freedom' of movement, to eliminate points of friction, to allow the introduction of rules, can lead to a diminution of solidarity among workers as against management. It can, of course, have the opposite effect.

103. Jean Monds criticizes Katherine Stone's 'The Origin of Job Structures in the Steel Industry' for presenting a similarly misleading portrait of nineteenth-century capitalism as 'the lost paradise of craft autonomy' ('Workers' Control and the Historians: A New Economism', *New Left Review*, no. 97, May-June 1976, p. 90). In writing of the destruction of crafts in the steel industry, Stone ignores the already created unskilled workers. The craft workers represented a small labour aristocracy that was not wholly of the working class but, to use Erik Olin Wright's terms, in a contradictory class location between workers and capitalists (Wright, 'Class Boundaries in Advanced Capitalist Societies', *New Left Review*, no. 98, July-August 1976, pp. 3-41).

104. Frederick Engels, *The Conditions of the Working Class in England*, St Albans 1969, pp. 163-239; but see also Chapter Two.

105. Alternative periodizations of the capitalist labour process can be found in Richard Edwards, *Contested Terrain*, New York 1979; Andrew Friedman, *Industry and Labour*, London 1977; and Craig Littler, *The Development of the Labour Process in Capitalist Societies*, London 1982. For my critique of these and a further alternative, see Chapter Three.

106. Braverman, p. 150. I am not suggesting that managerial attempts to increase meaning and participation will have the effect of augmenting class struggle, as is argued by Michel Bosquet ('The Prison Factory', *New Left Review*, no. 73, May-June 1972, pp. 23-24). A less optimistic view of the implications of recent trends in management practice and philosophy is to be found in Theo Nichols, 'The "Socialism" of Management: Some Comments on the New "Human Relations"', *Sociological Review*, no. 23, May 1975, pp. 245-65. In an overview of the schemes for job enrichment, humanization, etc., James Reinhart argues that such changes frequently mask increased rationalization of the labour process; that managers are able to exercise greater control over the workforce in the name of work humanization (see 'Job Enrichment and the Labour Process', paper presented to New Directions in the Labour Process, a conference sponsored by the Department of Sociology, State University of New York, Binghamton, 5-7 May 1978).

107. See Habermas, 'Technology and Science as "Ideology"', and Marcuse, *One-Dimensional Man*, chapter 6.

108. Braverman, p. 19.

109. Marx himself was, of course, optimistic about the development of the forces of production under capitalism. They contributed simultaneously to the necessity of the supersession of capitalism and to the possibility of the inauguration of socialism. 'Large-scale industry, through its very catastrophes, makes the recognition of variation of labour, and hence of the fitness of the worker for the maximum number of different

kinds of labour, into a question of life and death. . . . The partially developed individual, who is merely the bearer of one specialized social function, must be replaced by the totally developed individual, for whom the different social functions are different modes of activity he takes up in turn.' *Capital*, Vol. One, p. 618.

110. Braverman, p. 22.

111. For a discussion of these issues, see Ulysses Santamaria and Alain Manville, 'Lenin and the Problem of Transition', *Telos*, no. 27, Spring 1976, pp. 79-96.

112. As Erik Wright pointed out in conversation, the technical imperatives may take the negative form of ruling out rather than specifying certain features of the relations in production. Variations of fit between technology and productive relations have been explored by the school of 'socio-technical systems' associated with the Tavistock Institute. One of the most interesting and detailed of their studies was the one conducted in the British coal-mining industry, where they show how mechanization proves to be incompatible with the traditional form of work organization based on the self-regulating group, and leads to a decline in productivity. They conclude that mining can be organized in one of two ways, on the basis of either the self-regulating work group or an extremely punitive bureaucracy. See Trist, et al., *Organizational Choice*. Whereas in advanced capitalist nations miners have managed to resist the second alternative, the political circumstances of colonialism or apartheid in the nations of southern Africa facilitated the emergence of a coercive militaristic organization of work. It is interesting to study what happens to such a work organization when the relations of political power between black and white are transformed with the attainment of national 'independence'; see Chapter Five.

113. Braverman, p. 193.

114. *Ibid.*, pp. 281-82, 229; see also pp. 194-95, 199, 227.

115. *Ibid.*, p. 230.

116. *Ibid.*, p. 232.

117. Note that Lenin said the same thing fifty years ago when Taylorism and the assembly line were the most advanced forms of capitalist technology. One wonders, then, what we will be saying fifty years hence. On what grounds can one claim that contemporary advanced technology is more viable than early machines under a prospective socialism, particularly if the machines themselves are neutral?

118. For a discussion of alternative notions of 'socialist socialization' see Santamaria and Manville; and Karl Korsch, 'What Is Socialization?' *New German Critique*, no. 6, Fall 1975, pp. 60-81.

119. Braverman, p. 230; see also p. 445.

120. The Frankfurt School is not altogether consistent on this matter. In Horkheimer and Adorno's *Dialectic of Enlightenment* and Marcuse's *One-Dimensional Man*, capitalist technology embodies and is irrevocably contaminated by the domination of people over people. Marcuse, in *Eros and Civilization* (New York 1972), and Horkheimer, in *Eclipse of Reason*, express a certain optimism in the emancipatory potential of the development of the forces of production.

121. Braverman, pp. 80, 118.

122. Inasmuch as the Babbage principle is reflected in the design of machines and the organization of work, it makes nonsense of the various attempts, such as those of Marglin and Stone, to separate efficiency from control.

123. Braverman, p. 206; see also pp. 193, 227.

124. *Ibid.*, p. 170.

125. Yale Magrass suggested to me that a distinction be drawn between technology and machines. He also suggested that Braverman accepted the use of capitalist technology under socialism, but thought that this would give rise to socialist machines.

Thus, computer technology can be used alongside different types of machines that prepare and code data, some of which are conducive to the separation of conception and execution and some of which are not (see Braverman, pp. 331-32). In other words, while technology may be innocent, its embodiment in machines is tainted.

126. See Carter Goodrich, *The Frontier of Control*, New York 1920, pp. 3-50; and Monds. It may be useful to distinguish reunification of conception and execution at the individual level (job control or the restoration of the craft worker) from such reunification at the collective level, which might more closely approximate worker control. Moreover, collective reunification may prove to be compatible with individual reunification only under certain types of technology.

127. Lukács, p. 27.

128. Max Weber, *The Protestant Ethic and the Spirit of Capitalism*, New York 1958, p. 181.

129. Braverman, p. 233.

130. Horkheimer, 'Traditional and Critical Theory', in *Critical Theory*, New York 1972, p. 213. Unlike Weber, critical theorists, at least in principle, regard this form of domination not as inevitable but as the product of capitalism or more generally of the 'domination of nature'. Yet they, like Braverman, offer little in the way of hope for its supersession. Indeed, in an essay with remarkable parallels to *Labour and Monopoly Capital* ('The Authoritarian State', *Telos*, no. 15, Spring 1973, pp. 3-20) Horkheimer harks back to the council communists as a potentially emancipatory movement in much the same vein as that in which Braverman harks back to the craft tradition. Interestingly, the council communists were also frequently skilled workers.

131. As John Myles suggested to me, Braverman's individualism springs from his conception of human beings and human work: 'Human work is conscious and purposive, while the work of other animals is instinctual. . . . In human work . . . the directing mechanism is the power of conceptual thought. . . . Thus work as purposive action, guided by the intelligence, is the special product of humankind' (Braverman, pp. 30-31). From these premises Braverman is able to derive the central theme of his book: 'Thus, in humans, as distinguished from animals, the unity between the motive force of labour and labour itself is not inviolable. The unity of conception and execution may be dissolved. The conception must still precede and govern execution, but the idea as conceived by one may be executed by another' (pp. 41-49).

Thus, from the beginning, individualism is embodied in Braverman's notion of deskilling and the degradation of work. By contrast, my own point of departure regards the distinctive feature of human work as the *social relations* into which men and women enter as they transform nature. This draws on a different emphasis within Marx: 'Language, like consciousness, only arises from the need, the necessity, of intercourse with other men. Where there exists a relationship, it exists for me: the animal does not enter into relations with anything, it does not enter into any relations at all. For the animal, its relation to others does not exist as a relation. Consciousness is, therefore, from the very beginning a social product, and remains so as long as men exist at all' (*The German Ideology*, p. 42). Where Braverman focuses on domination and the destruction of the worker who simultaneously conceives and executes, I examine the reproduction of social relations that both obscure and secure surplus.

These differences parallel recent debates over critical theory's appropriation of psychoanalysis. As found in the work of Adorno, Horkheimer and Marcuse, critical theory embraces Freud's basic postulate concerning the innate aggressiveness and self-interest of the id, posing as central the relationship of the individual to society. Such a position on one hand leads to themes of the eclipse of the individual, and on the other hand harmonizes well with disillusionment over the possibility of socialism. Jessica Benjamin has exposed the link between the psychoanalytic presuppositions of

orthodox critical theory and its overall pessimism. Drawing on object relations theory, she replaces the individualism of Freudian instinct theory with the postulate of the inherent sociality of men and women — their need for mutual recognition — and examines how this becomes distorted under capitalism. Naturally her position points to a more optimistic picture of any future socialism. See Jessica Benjamin, 'The End of Internalization: Adorno's Social Psychology', *Telos*, no. 32, Summer 1977, pp. 42-64.

132. Braverman, pp. 60, 120, 172.

133. *Ibid.*, p. 280; see also chapter 13.

134. *Ibid.*, p. 271.

135. 'The Working Class Has Two Sexes', *Monthly Review*, no. 28, July-August 1976, pp. 1-9.

136. Braverman, p. 275.

137. *Ibid.*, pp. 377-90.

138. *Ibid.*, p. 378.

139. By 'functionalism' I mean a form of causal analysis in which consequence determines cause. In its simplest form the mechanisms through which this occurs are unstated. More sophisticated forms specify the mechanisms and the conditions under which they are or are not effective in linking cause to consequence. See Arthur Stinchcombe, *Constructing Social Theories*, New York 1968, chapter 3.

140. *Capital Volume 1*, Moscow 1954, p. 82.

141. There is some confusion here due to my use of politics, ideology and law in two different contexts: with regard to the reproduction of relations of production on one hand and of relations in production on the other. Unless otherwise stated, in this section I am referring to the first and larger context of politics, ideology and law, and when I talk of the mode of production or of the economic I am subsuming its own political and ideological realms.

142. Balibar, 'The Basic Concepts of Historical Materialism', pp. 226-33, and *On the Dictatorship of the Proletariat*, pp. 66-77; Poulantzas, 'L'Examen Marxiste du Droit et de l'Etat Actuels et la Question de l'Alternative', *Les Temps Modernes*, no. 20, 1964, pp. 274-302; and Poulantzas, *Political Power and Social Classes*.

143. The notion of a 'structured totality' comes from Louis Althusser, *For Marx*, London 1969, especially chapter 3; and Althusser and Balibar, *Reading Capital*. The defining features of a structured totality in contradistinction to an expressive totality are the 'relative autonomy' of its parts and their mutual determination through the conditions of each other's reproduction, producing what Althusser refers to as an 'overdetermination'.

144. *The Fiscal Crisis of the State*, New York 1973.

145. Braverman, pp. 284-89. Braverman does touch on the role of the state in the context of social coordination (p. 269). It might be argued that the theory of the state had already been dealt with adequately in the companion volume, *Monopoly Capital*, by Paul Baran and Paul Sweezy (New York 1966), and hence Braverman did not want to go over the same territory. Nevertheless, the absence of an analysis of the state or references to such an analysis conveys a certain picture of society that is not without political implications.

146. 'Theses on the Theory of the State', *New German Critique*, no. 6, Fall 1975, pp. 137-48.

147. *Legitimation Crisis*, Boston 1975.

148. *Late Capitalism*, NLB London 1975. The most important attempt to situate the analysis of the labour process within a logic of use value and exchange value is Michel Aglietta's *A Theory of Capitalist Regulation* — The U.S. Experience, NLB London 1979.

149. Gorz, 'Technology, Technicians and Class Struggle', in *The Division of Labour*,

pp. 159-89; Poulantzas, *Political Power and Social Classes*; and Gramsci, op. cit.

150. This is not entirely true. Braverman does refer at one point to the 'insoluble contradiction that exists between the development of the means of production and the social relations of production that characterize capitalism'. But even here he is referring more to capitalism's irrationalities than to a concrete analysis of its dynamics. At one point he asserts the tendency for productive labour to decline, but he does not draw any implications (pp. 280, 423; see also pp. 206, 282). Interestingly, however, he makes no reference to Baran and Sweezy's use in *Monopoly Capital* of productive and unproductive labour as a 'critical' concept.

151. Failure to examine the conditions of domination outside the very broad parameters of capitalist relations of production leads not only in the direction of unjustified pessimism but also, in conjunctures of social ferment, to equally unjustified optimism. Movement between these polarities signifies an inability to link appearances to their underlying forces or a tendency to mistake the former for the latter. What other implications can be drawn from the adoption of one or the other totality? In a critical examination of Aronowitz's *False Promises*, which in many ways parallels my own treatment of Braverman, Jean Cohen suggests that the formulation of an expressive totality 'logically leads to conclusions that (Aronowitz) abhors — the necessity of a party' ('False Promises', *Telos*, no. 24, Summer 1975, p. 138). In this Cohen is, of course, drawing parallels with Lukács. Inasmuch as Braverman holds to the proletariat as the only revolutionary subject, Cohen's argument presumably applies to him as well. As regards the structured totality, it has been linked by some to the dangers of scientism and Stalinism. But again, by itself, without the importation of certain political premisses, it has no unambiguous ideological implications.

152. Braverman, of course, does postulate the conditions of the dominance of capital in the continued existence of capitalist social relations (p. 22). To be sure, this is a definite advance over 'traditional theory', but it does not help us explore how that dominance might end.

153. Gramsci, p. 158.

154. The three realms of the production process are of course the economic, political and ideological, which include the political and ideological aspects of work as such, as well as the political and ideological apparatuses of production which regulate struggle.

155. Gramsci, pp. 302-3.

156. Ibid., p. 285. Gramsci unfortunately ignores the importance of slavery and the persistent heritage of racism it instigated — although it can be argued that racism has contributed to rather than retarded the accumulation of capital.

157. Ibid., pp. 285-86.

158. The following discussion draws on Ronald Dore's *British Factory-Japanese Factory*, Berkeley 1973, and on ideas thrown out by David Brody in a seminar he gave at Berkeley. See also Brody, 'The Rise and Decline of Welfare Capitalism', in J. Braeman, R. Bremner and David Brody, eds., *Change and Continuity in Twentieth-Century America: The 1920s*, Columbus, Ohio 1968.

159. This is not to say that there are no distinctions among the labour processes and conditions of work in the different sectors of the British economy, but that they are less pronounced. In his comparison of two British firms, a garment factory in the competitive sector and a transformer company in the monopoly sector, Tom Lupton suggests that the differences in the labour process may in part be attributed to the market contexts of the two firms.

160. Gramsci, p. 173.

Karl Marx and the Satanic Mills

This chapter seeks to resolve a historical anomaly by unravelling a theoretical paradox. The anomaly is the commonplace observation that in England, where Marx anticipated the outbreak of the first socialist revolution, the working class proved to be reformist in its political impulses, whereas in Russia, whose backwardness was supposed to delay the transcendence of capitalism, the working class proved to be the most revolutionary.¹ Although there have been many attempts to explain the anomaly within a Marxist framework, they have generally suffered from one of two shortcomings: either they have dwelt on the peculiarities of England or Russia, instead of providing a single framework which would explain both working-class reformism in the one and the spread of revolutionary momentum in the other; or they have lost sight of the centrality of the process of production in shaping the character of the working class. In this chapter I try to address both shortcomings by linking the historical anomaly to a theoretical paradox: that for Marx, capitalist production is both the spring of class struggle and an arena of undisputed domination of labour by capital.²

In *The Communist Manifesto* Marx and Engels write: 'The advance of industry, whose involuntary promoter is the bourgeoisie, replaces the isolation of the labourers, due to competition, by their revolutionary combination, due to association.' 'This organization of the proletarians into a class, and consequently into a political party, is continually being upset again by the competition between the workers themselves. But it ever rises up again, stronger, firmer, mightier.'³ And in *Capital* Marx writes: 'Along with the constant decrease in the number of capitalist magnates, who usurp and monopolize all the advantages of this process of transformation, the mass of misery, oppression, slavery, degradation and exploitation grows; but with this there also grows the revolt of the working class, a class constantly increasing in numbers, and trained, united and organized by the very