

## **CLASS POWER AND ALIENATED LABOR**

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In 1844 Karl Marx introduced the concept "alienated labor" into the raging intellectual battles concerning the nature of the emerging capitalist order. Marx was prophetic indeed. In the past few decades, after resting in academic obscurity for nearly a century, the term has been elevated to a central position in social criticism.

The recent revival of the concept of alienation among radicals owes much to those movements which have brought discontent among rank-and-file workers, students, women, and others into the political arena. Corporate and political elites, too, have taken up the term, though more often in response to their peculiar needs: combating worker absenteeism, sabotage, and lagging productivity; controlling and containing youth culture; reasserting the legitimacy of authority on the campus;

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The authors, who teach political economy at the University of Massachusetts, are co-authors of a forthcoming work, to be published by Basic Books, on education and capitalism in the United States. They would like to acknowledge financial support from the Ford Foundation in conducting the research on which this article is based.

and smoothly integrating new workers into the wage-labor system. The concept of alienation has become important as well in the analysis and critique of social structure and social change in the state socialist nations of Eastern Europe.

The growing awareness of the social basis of alienation—an awareness of quite recent vintage—has as yet failed to produce an adequate social analysis. This is due in part to the particular form in which this awareness is couched: alienation is seen as arising directly from the nature of technology in “modern industrial society,” and hence as remaining independent of any particular set of economic institutions. This view is reinforced through our understanding of the historical development of capitalism’s main “competitor,” state socialism in the Soviet Union and Eastern Europe. So-called “socialist man” seems to differ little from his capitalist counterpart, and so-called “socialist society” seems little better equipped to avoid the problems of Alienated Man than its avowed adversary.

We shall try to show in this paper not only that alienation is a social rather than a psychological problem at its root, but that it results from the structure of technology only in the most immediate and superficial sense, in that the form that technological development takes is itself strongly influenced by the structure of economic institutions and their day-to-day operations. If capitalist and so-called socialist economies experience these same problems, it is due to the essential similarity of their basic economic institutions, a similarity only minimally affected by differences in the legal patterns of ownership of capital.

We will analyze the labor process in terms of a pair of contradictions. First, there is the broad and ubiquitous contradiction between the needs of the community for the products of work and the self-actualizing needs of the workers as affirmed or negated in the production process. Second, and more narrowly, there is the contradiction between those who direct the production process and those who effect it. Under capitalism this latter conflict takes the form of the antagonistic contradiction between capital and labor.

These twin contradictions arise logically and inevitably in any economic system in which there is an advanced social

division of labor—i.e., in which immediate producers orient their products toward a community extending beyond their immediate families, and the production process is sufficiently complex that some differentiation, however flexible and democratic, between coordination, control, and actual production is organizationally or technologically dictated.

Our concept of alienated labor and its opposite—which we call integrated labor—is based on an analysis of the process of individual development in light of these contradictions. This process may be depicted as a dialectical interaction between individual and environment with three major aspects. First, the capacities—be they physical, intellectual, emotional, aesthetic, or spiritual—on which personal well-being depends develop through the types of social intercourse the individual sustains, both with natural objects and with other individuals. In particular, workers develop their personal powers and self-concepts through the work relations they enter in daily life. Second, individuals can control their personal development by placing themselves advantageously within the social environment confronting them, as well as by acting consciously and effectively to modify the characteristics of this environment. Thus, the worker may guide his or her own personal development both by choosing a more or less desirable job with advantageous social conditions, and by bringing these social conditions, through conscious activity, into conformity with his or her developing needs. Hence the process of guiding personal development through the continual affirmation and transformation of work relations, and not merely the social relations of work as a static end-result, is crucial to liberated development. And third, since many central aspects of the social environment can be modified only through the collective activity of several individuals involved in its reproduction, people in general can control the environment within which they jointly develop by mutually regulating the interactions among themselves, and by controlling the conditions under which they strike common goals and strategies for their developmental needs. In particular, the process of personal development through modification of work relations is inherently *social*. Because the production process

is necessarily a cooperative enterprise, regulation requires solidarity and coordination among participants.

In this setting people control their personal development by progressively tailoring their social environment to their manifest needs through their conscious wills. A sphere of social life will be called *integrated* if the social institutions and power relations of this sphere facilitate the translation of human needs into social outcomes through individual choice and collective action. When a sphere of social life (e.g., education, work, community) is integrated, it develops historically in conformity with the developmental needs of individuals. The transformed social environment, by satisfying these needs and creating a consciousness of further needs, thus creates the conditions for its further transformation and development. In an integrated setting, personal development and the development of the social environment proceed hand in hand.

A sphere of social life will be called *alienated* if the social institutions and power relations of this sphere do *not* allow the translation of human needs into social outcomes. In an alienated setting the course of change in the social environment follows a logic of its own, "alien" to the individual choices and collective actions of its participants. In particular, the social relations of work in society will be alienated if the social determinants of jobs and the historical development of social labor do not reflect individual needs, as embodied in the individual and collective decisions of those who perform on the job, within the limits imposed by the technologies actually and potentially at hand. When social labor is alienated, the dialectical interaction between people and their work is broken in the sense that, while the social experience continues to take its toll on individuals, they have little power to turn this experience to their advantage. Alienated labor thus thwarts rather than fosters personal development.

We hold that the social relations of work in capitalist society are alienated in the above sense. We shall suggest, moreover, that alienated labor is due directly to the *class nature* of production. Far from being analytically separate phenomena, alienated labor and the domination of labor by capital are two sides of the same coin. The dialectical interaction between

work and individual development is broken by a minority of participants—capitalist employers and managers—in order to secure profits and to perpetuate their class position. The hierarchical division of labor, a prime instrument in the domination of workers, fosters alienated labor in several ways. First, profits depend on the secure top-down control of the labor force, a prerequisite for which is the fragmentation of workers' solidarity; the hierarchical division of labor prohibits the formation of bonds of solidarity through which workers can properly coordinate to transform (or affirm) their social conditions. Second, this lack of power of workers allows bosses to determine the conditions of work and the historical transformation of these conditions, not according to criteria of human need but of secure profits and managerial control. Third, even the individual's decision to opt for some jobs and reject others will not lead to a gradual increase in the supply of "desirable" jobs, because the only essential choice the worker has is to accept or reject a job whose content is determined by others, on the basis of profit and control. In all these respects, work appears as a "fact of life" to which individuals must by and large submit and over which they have no control. Like the weather, work "happens" to people. In this case, work is an alienated activity.

Yet alienated labor is by no means an inevitable "fact of life" in advanced societies. We will conclude that a reorganization of economic life around the norms of integrated work requires a thoroughgoing transformation of relations of class, power, and authority in U.S. society.

The social transformation our analysis bids us advocate is that of a socialist economy. The socialism we envisage, however, goes far beyond the traditional models of the Soviet Union and Eastern Europe. This kind of socialism socializes the ownership of the means of production, while leaving the patterns of control of production in the hands of a minority whose social position depends on its exercise. In short, the internal social relations of production coincide more or less with that of a capitalist enterprise. Hence, much of our analysis of alienated labor under capitalism applies equally to the state socialist system as well. Whatever may be the benefits of state socialism, integrated work is not one of them.

## Integrated and Alienated Labor

The production of material output is only one of the functions of work. Others include the economic security of the worker, social relations among workers, and, most important, the development of the human potentialities of the worker—as a social being, as creator, and as master of nature. Indeed, Marx was only one of many who considered work as the essence of human activity: “Men can be distinguished from animals by consciousness, by religion, or anything else you like. They themselves begin to distinguish themselves from animals as soon as they begin to produce their means of subsistence.”

The worker, in the process of production, produces not only material products, but *himself* or *herself* as well:

[Labor is] a process going on between man and nature, a process in which man, through his own activity, initiates, regulates, and controls the material reactions between himself and nature. He confronts nature as one of her own forces. . . . By thus acting on the external world and changing it, he at the same time changes his own nature.

The connection between work and social life is one of the classic questions in sociology. As the sociologist Elliot Jacques eloquently attests:

Working for a living is one of the basic activities in a man's life. By forcing him to come to grips with his environment, with his livelihood at stake, it confronts him with the actuality of his personal capacity—to exercise judgment, to achieve concrete and specific results. It gives him a continuous account of his correspondence between outside reality and the inner perception of that reality, as well as an account of the accuracy of his appraisal of himself. . . . In short, a man's work does not satisfy his material needs alone. In a very deep sense, it gives him a measure of his sanity.

Accordingly, in proportion as work is broad or narrow, stimulating or monotonous, it develops or stunts one's abilities. Only variety of work can develop the many sides of human ability and character.

Moreover, since individuals develop their personalities and consciousness *through* the way they relate to productive activity, work is the basis for the formation of social classes. Classes are groups of individuals who relate to the ownership and control

of the means of production in similar ways. Thus, insofar as capitalists and workers, farmers and wage laborers, white-collar and blue-collar workers, male wage-laborers and female domestic workers, are subject to different experiences and property relations in production, they tend to develop distinct cultures, life-styles, interests, and ideologies. Thus, social stratification and the fragmentation of the working class is itself based on the experience of individuals in production.

In short, the quality of work has an impact on the individual extending far beyond immediate satisfaction on the job. The degree of control over processes, outcomes, and interpersonal relations determines the extent to which work is a creative, socially constructive outlet. The challenge of work, or lack thereof, measurably affects the development of the worker's physical, cognitive, emotional, and aesthetic capacities. And finally, the content of work, its social valuation and social contribution, are basic elements of the individual's self-esteem.

It is a major indictment, then, of our social system that most people view their jobs as, at best, a painful necessity. While wages, physical working conditions, and job security have improved dramatically over the years for most workers, there is still discontent. Absenteeism, high turnover, wildcat strikes, industrial sabotage, and willful laxity of job performance have all increased dramatically in the past decade. *Work in America*, the recent report of a special task force to the Secretary of Health, Education, and Welfare, documents that only 43 percent of white-collar and 24 percent of blue-collar workers, in a large representative sample, say they are satisfied with their jobs. Good pay and working conditions are not enough—workers want creative and meaningful jobs. In the words of the HEW report: "What the workers want most, as more than 100 studies in the past 20 years show, is to become masters of their immediate environments and to feel that their work and they themselves are important—the twin ingredients of self-esteem."

The testimony of thousands of workers, and hundreds of recent studies, is starkly reminiscent of Marx's description of alienated labor, written 130 years ago:

What, then, constitutes the alienation of labor? First, the fact that labor is *external* to the worker, i.e., it does not belong to his

essential being; that in his work, therefore, he does not affirm himself but denies himself, does not feel content but unhappy, does not develop freely his physical and mental energy but mortifies his body and ruins his mind. The worker therefore only feels himself outside his work, and in his work feels outside himself. He is at home when he is not working, and when he is working he is not at home. His labor is therefore not voluntary, but coerced; it is *forced labor*. It is therefore not the satisfaction of a need; it is merely a *means* to satisfy needs external to it. Its alien character emerges clearly in the fact that as soon as no physical or other compulsion exists, labor is shunned like the plague. External labor, labor in which man alienates himself, is a labor of self-sacrifice, of mortification.

### Markets, Technology, and Alienated Work

Few readers will question our broad characterization of work in the corporate capitalist economy. But have we correctly identified capitalism as the source of the problem? If the historical development of the structure and content of jobs is responsive to the wills and needs of workers to the extent feasible, given the technological alternatives, our indictment of capitalism must be tempered; for in this case alienated labor would assume the status of a condition of humankind, an externally imposed technological imperative.

What are the determinants of jobs in U.S. capitalism? The private ownership of the means of production and the operation of the market in labor, or more broadly the social relations of capitalist production, act to place the determination of the organization of production—and hence the content of the job—in the hands of a small group of employers, while compelling most individuals to relinquish disposition over their productive activities to these employers in return for a wage or salary. Moreover, employers determine the content of work-activities, as well as the direction of technological and organizational innovation, according to criteria manifestly tangential if not inimical to the concerns of workers: profitability and the maintenance of the employers' own elevated economic positions. Lastly, the product of labor is not owned by the worker; nor does the worker have a voice in determining what commodities the enterprise will produce.

The *prima facie* case, that the roots of alienated labor lie



in the social relations of capitalist production, is thus quite strong. The needs and wishes of workers will be embodied in employers' decisions only to the extent that they further the latter's goals. The social relations of the corporate capitalist enterprise are organized to reflect the interests of capitalists and directors, to whom all other groups are subservient and even pitted against one another. However, the issue is really considerably more complex. For workers can express their needs, not directly through control within the enterprise, but indirectly through their personal discretion as to which jobs they will or will not accept. Indeed, the standard argument in liberal economic theory is an attempt to prove the following assertion. When firms maximize profits, and when labor and all other factors of production are bought and sold on markets where prices and wages are determined by supply and demand, then the structure of jobs will reflect workers' preferences, subject only to the availability of natural resources and known technologies of production. Thus the sphere of work is integrated, in the sense that workers essentially choose their job structures within the limits imposed by nature and the level of scientific knowledge.

Let us consider the argument in more detail. Suppose that workers are faced with a job structure characterized by repressive and routine jobs subject to hierarchical authority, and they decide they would prefer more satisfying work. How do they express this preference? Clearly by offering their services at a lower wage or salary to an employer who provides the kind of work they desire. Thus some enterprising employer will note that he can obtain cheaper labor than his competitors if he provides these jobs, and will look around for a production technique compatible with them, the (ostensibly lower) efficiency of which is more than counterbalanced by the lower wage bill. If he discovers such a profitable organizational or technical alternative, then the workers will get the jobs they prefer and his competitors will be forced to adopt the same production technique in order to hold their workers. So the story goes.

In this view, if jobs are unrewarding it must be due to either the nature of technology or the preference of workers for higher incomes as opposed to desirable jobs. The desirability of

jobs is reflected in the wage at which the worker is willing to accept the job, or what economists call the supply price of labor. Indeed, most of us, in deciding our life's work, make some trade-offs between income and job desirability. The employer does have some incentive to make work attractive, hence lowering his labor costs. But does this mechanism render work responsive to the needs or wills of workers? We believe not.

First, there is ample evidence, to be reviewed shortly, that even within the confines of existing technologies work could be organized so as to be more productive and more satisfying to workers. That these opportunities exist and are resisted by employers points to the unresponsiveness of job structure and content to worker needs. Second, technology itself is not the result of the inexorable and unidimensional advance of knowledge. Rather, it reflects the monopolization of control over new investment and effective control over technical information by capitalists and their representatives. The history of technology thus represents an accumulation of past choices made for the most part by and in the interests of employers. Hence even the limits of present technologies cannot be exempted from analysis. We must ask, "Was the process determining the path of technological change responsive to the needs of workers?" Lastly, there is ample evidence that the choices made by workers facing a trade-off between higher incomes and more participatory workplaces (or other work objectives) are systematically biased by the compulsory forms of socialization—especially schooling—imposed on young people.

We conclude that work is a social phenomenon which under capitalism follows a logic of its own, apart from the wills of the mass of individuals affected by it. Thus alienated labor is a condition of capitalist society. It is neither a psychological condition of workers nor a product of modern "mass-production technology."

That the hierarchical division of labor is not necessarily efficient contradicts many deeply held, but empirically unsubstantiated, opinions. We shall discuss three of these. The first such opinion is that the productivity of capitalist enterprise and its victory over traditional work-forms during the Industrial Revolution demonstrate the unique compatibility of the hierarchical

division of labor with advanced technology. The second opinion is that the fragmentation and routinization of jobs leads, in itself, to increased productivity, despite its deleterious effect on worker satisfaction. The third, and most important, is that no other known form of work organization is more productive than the hierarchical division of labor. We believe all three are incorrect.

Rather we believe that the success of the factory system in the early stages of the Industrial Revolution was due primarily to the tapping of cheap labor supplies, the extension of the hours of work, and the forced increase in the pace of work; that job fragmentation is a means of reducing the solidarity and power of workers; and that democratic participation in production tends to increase productivity.

The inability of new technologies to account for the emergence of the capitalist factory system in Great Britain has been documented by Stephen Marglin (see Bibliographical Note at the end of the article). He argues that the success of the capitalist production unit must be attributed to its efficacy as a means of economic and social control. First, if all workers could perform all tasks, their knowledge of the production process would allow them to band together and go into production for themselves. In the guild system this was prevented by legal restrictions—the guild-masters had control over the number of new masters admitted, and all production had to be under the direction of a legal guild-approved master. In “free enterprise” this form of control was interdicted.

Second, even within the capitalist firm, the boss's control depended on the lack of control of each worker. To allow all workers the capacity to deal knowledgeably and powerfully with all parts of the production process both increases their sense of control and autonomy and undercuts the boss's legitimacy as the coordinator of production. Yet it is this legitimacy which maintains his position of financial controller and intermediary between direct producers and consumers. Job enlargement and democratic worker control would soon threaten the political stability of the firm. That this policy of “divide and conquer” through task-fragmentation was central in the minds of bosses is amply illustrated in Marglin's cited essay.

But if early factories used technologies apparently similar to the contemporary worker-controlled operations, why were the former able to undersell and eventually displace their more traditional competitors? To what was the increase in per capita productivity in the early Industrial Revolution due? The answer seems to lie in the system of hierarchical control as a direct means of increasing the employers' power over workers. Having all workers under one roof allowed the capitalist to increase drastically the length of the work week. Instead of making his or her own work-leisure choice, the worker was forced to accept a 12- or 15-hour work day, or have no work at all. Since all workers were paid more or less subsistence wages independent of the length of the work-day, the factory system drastically reduced labor costs. Moreover, the system of direct supervision in the factory allowed the capitalist to increase the pace of work and the exertion of the worker. Lastly, the factory system used pools of pauper, female, and child labor at much lower cost than that of able-bodied men.

As a result, the capitalist was able to pay generally higher weekly wages to the male labor force, while reducing the cost of output and appropriating huge profits. It was their greater capacity to accumulate capital, to reinvest and expand, which tipped the balance in favor of capitalist enterprise. But this was due to increased exertion of labor, not to the technical efficiency of the factory system. This situation forced the independent producers to increase their own work-day to meet their subsistence needs, given the falling prices of their product. In this way these producers maintained their position alongside the factory for over a quarter century.

Eventually, however, the factory system did win out on technical grounds. The reasons are interesting in light of our discussion of technological determinism. First, because only the capitalist producers had the financial resources to invest heavily in new machinery, inventors sought to meet their needs. They thus geared their innovations to types compatible with the social relations of factory production. Second, because of the large number of independent producers, it would have been impossible for them to protect patent rights, whereas the large size of the capitalist firm provided a stable and conspicuous market for

the inventor. Third, most inventors aimed at allying with capitalist partners and going into production for themselves. All these factors lend to the pattern of technical innovation a strong bias toward the hierarchical, fragmented production relations of the capitalist firm.

The tremendous pace of technological change in the nineteenth century was of course a major factor in the success of the capitalist class and in the rapid international expansion of capitalism. And the development of new techniques, as well as the pressure for product standardization and rigid production scheduling, no doubt brought about changes in the social relations of production. Yet, our analysis, which draws heavily on Stephen Marglin's "What Do Bosses Do?", indicates that the division of labor and the power relations of the capitalist enterprise cannot be explained by technological necessity. In a path-breaking study of the development of the U.S. steel industry, Katherine Stone has documented that the social organization of work did not arise from technological necessity at all, but from the needs of management to *control* the process of production. In the period from 1890 to 1910, steel came of age in the United States. Spurred by the merger activities of Andrew Carnegie, U.S. Steel became the world's first billion-dollar corporation, which, by 1901, controlled 80 percent of the U.S. market. This phenomenal growth, which involved large-scale introduction of new techniques and machine processes in production, was securely founded on the hierarchical division of labor. Yet the evidence clearly shows that the new social relations of steel production were *not* technologically determined.

Prior to 1890, steel production was characterized by a great degree of worker control over production. The group of skilled workers contracted with management, receiving a price per ton of steel based on a sliding scale which reflected the current market price. The skilled workers then hired other workers ("unskilled") whom they paid out of their pockets, and agreed on a division of receipts among themselves. Because of their knowledge and control of the work process, and through the power of their union (the Amalgamated Association of Iron, Steel and Tin Workers), the skilled workers had veto power

over any management-proposed changes in the work process, including technical innovation.

This situation posed a crucial dilemma for the early steel magnates: How could technical innovation be introduced without the benefits accruing to the workers themselves? Clearly only by breaking the power of workers to control the process of production. In 1892, Henry Clay Frick was called on to do the job. Workers were locked out of the Homestead Mill, Pinkerton men were called in to enforce company decisions, and a "non-union shop" was declared. The Amalgamated Steel Workers Union was smashed, hierarchical procedures instituted, innovation proceeded apace, and the future of a high-growth and high-profit steel industry was assured. As David Brody concludes: "In the two decades after 1890, the furnace worker's productivity tripled in exchange for an income rise of one half; the steel worker's output doubled in exchange for an income rise of one fifth. . . . The accomplishment was possible only with a labor force powerless to oppose the decisions of the steel men."

Here we have a clear case of profit rather than efficiency determining the social division of labor. But once centralized control is imposed, it does seem to follow that efficiency dictates fragmented and routinized jobs. Indeed, this is the converse of a general proposition deduced from many laboratory experiments in organizational efficiency. Vroom has summed up the results of these laboratory exercises in his masterful survey of experimental literature in industrial social psychology. The evidence indicates, he writes, that "decentralized structures have an advantage for tasks which are difficult, complex, or unusual, while centralized structures are more effective for those which are simple and routinized." Turning this proposition around, we find that, given that the corporate unit is based on centralized control, the most efficient technologies will be those involving routinized, dull, and repetitive tasks. In a decentralized environment, the reverse would be true. This shows that the common opinion as to the superior productivity of fragmentation, as based on the observed operation of centralized corporate enterprise, entails a false inference from the facts.

Finally, the opinion that there is no known organizational technique superior to hierarchical control, seems also to be con-

troverted by the extensive evidence on the efficiency of worker participation. The results of dozens of studies indicate that when workers are given control over decisions and goal-setting, productivity rises dramatically. The recent HEW study, *Work in America*, records 34 cases of the reorganization of production toward greater worker participation which simultaneously raised productivity and worker satisfaction. Also Blumberg concludes:

There is scarcely a study in the entire literature which fails to demonstrate that satisfaction in work is enhanced or . . . productivity increases accrue from a genuine increase in workers' decision-making power. Findings of such consistency, I submit, are rare in social research . . . the participative worker is an involved worker, for his job becomes an extension of himself and by his decisions he is creating his work, modifying and regulating it.

But such instances of even moderate worker control are instituted only in marginal areas and in isolated firms fighting for survival. When the crisis is over, there is usually a return to "normal operating procedure." The threat of workers' escalating their demand for control is simply too great, and the usurpation of the prerogatives of hierarchical authority is quickly quashed. Efficiency in the broader sense is subordinated to the needs of bureaucratic control.

The lower productivity of the hierarchical division of labor must be ascribed directly to worker alienation. In a situation where workers lack control over both the process and product of their productive activities, their major preoccupation is to protect themselves from the arbitrary dictates of management. Their concern for the efficiency goals of management is at best perfunctory, and usually these goals are actively opposed as contrary to their interests. Significantly, many unions oppose current work reorganization schemes—even those allowing token worker participation—because workers have little defense against being displaced by productivity increases, and do not stand to share in whatever profit increases result. But this should not be allowed to obscure the fact that workers normally harbor a tremendous "reserve power" of effectiveness and inventiveness, awaiting only the proper conditions of control and integration to be liberated. The burden of proof has shifted markedly to those who contend that hierarchical forms of production are

the necessary price of ever-increasing affluence. Work is for the most part "meaningless" and repressive not because of the nature of technology and the division of labor, but because of the nature of the class structure and the social relations of production.

### Conclusion

In an earlier era the social order was legitimated by divine ordination. Ruler and ruled, oppressed and oppressor, wealth, poverty, and social position reflected a natural order laid down from on high. But science has replaced theology in the modern world, and with this change a new basis of social legitimation has come into being. The righteousness of things in the eighteenth century becomes their inevitability in the twentieth. This essay has presented a brief introduction to the explosion of the myth that the nature of work in capitalist society is dictated by science and reason in the form of technology and rational organization.

To locate the source of alienated labor in the social relations of capitalist production, and to understand the roots of these social relations in the class structure of society, is of fundamental importance. For social relations can be changed, and such changes in the past have been the major historical markers of progress toward civilization.

We propose a goal for the transformation of work, i.e., work as an *integrated process* wherein the dialectic relating our social being to our social becoming is strengthened rather than fragmented through the structure of the production unit. Integrated work means that jobs develop over time in keeping with our needs, to limits imposed by productive technology—a technology which, through democratic control, itself moves toward liberated embodied forms. The various experiments in worker control—however limited their extent—show the viability of this vision.

A thoroughgoing industrial democracy must be a cornerstone of a socialist program in the contemporary capitalist world. Yet control over the immediate work process by producers themselves, essential as it may be in the revolutionizing of society, is certainly no panacea, and may have little meaning if isolated from other fundamental issues. Workers' control,



by itself, does not provide answers to questions such as: What will be produced, how much power will individual productive units have in allocating resources, where will production be located, where will people live, what will be the approach to leisure and culture, the role of work and creativity? If our ultimate aim is human liberation, we must tackle much more than the workplace, and our analysis of alienated work must be part of a more general program of socialist transformation.

#### BIBLIOGRAPHICAL NOTE

Many of the empirical questions treated only sketchily in this paper are given their due in our forthcoming book listed below. For general background, the reader might consult Blumberg, Marx, and *Work in America*. We have also benefitted greatly from Vroom and Whyte. The papers by Marglin and Stone referred to in the text appear in the *Review of Radical Political Economics*, vol. 6, no. 2, 1974.

Samuel Bowles and Herbert Gintis, *Nightmares and Visions: Capitalism and Education in the United States* (tentative title), New York: Basic Books, forthcoming 1975.

Paul Blumberg, *Industrial Democracy*, New York: Schocken Books, 1969.

Karl Marx, *The Economic and Philosophical Manuscripts*, Dirk Struik (ed.), New York: International Publishers, 1963.

Victor H. Vroom, "Industrial Social Psychology," in G. Lindzey and E. Aaronsen (eds.), *The Handbook of Social Psychology*, Reading, Mass.: Addison-Wesley, 1969.

William F. Whyte, *Money and Motivation*, New York: Harper, 1955.

*Work in America*, Report of a Special Task Force to the Secretary of Health, Education and Welfare, Cambridge, Mass.: M.I.T. Press, 1973.

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The worker can regain mastery over collective and socialized production only by assuming the scientific, design, and operational prerogatives of modern engineering; short of this, there is no mastery over the labor process. The extension of the time of education which modern capitalism has brought about for its own reasons provides the framework; the number of years spent in school has become generally adequate for the provision of a comprehensive polytechnical education for the workers of most industries. But such an education can take effect only if it is combined with the practice of labor during the school years, and only if education continues throughout the life of the worker. . . . Such education can engage the interest and attention of workers only when they become masters of industry in the true sense, which is to say when the antagonisms in the labor process between controllers and workers, conception and execution, mental and manual labor are overthrown, and when the labor process is united in the collective body which conducts it.

—Harry Braverman, *Labor and Monopoly Capital*