

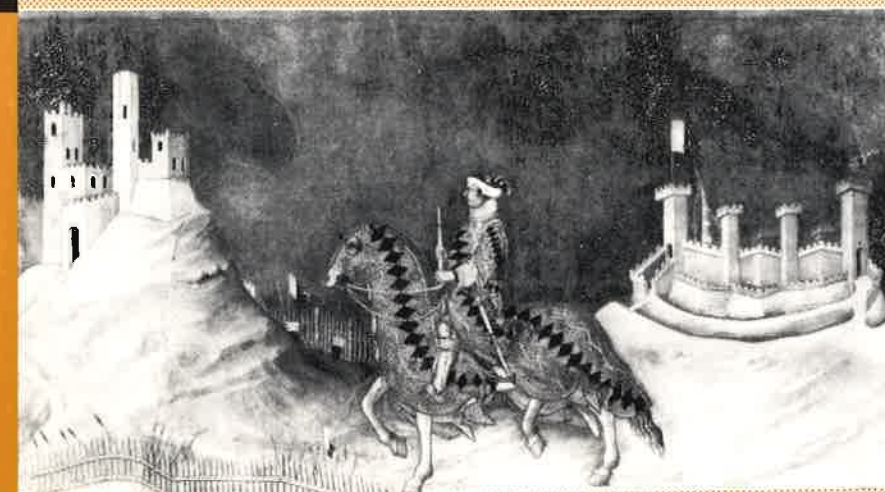
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QUADERNI DEL DIPARTIMENTO
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Ugo Pagano

BRAVERMAN, HARRY (1920 - 1976)



**QUADERNI DEL DIPARTIMENTO
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Siena, agosto 1990

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This entry has been written for the Biographical Dictionary of Dissenting Economists edited by Philip Arestis and Malcom C. Sawyer. I thank Fabio Petri for useful comments and Philip Arestis for his editorial help.

Born in New York City into a working class family, Braverman was forced to terminate his college education after only one year. He worked in the Brooklyn Navy Yard for seven years primarily as a coppersmith. After the decline of the coppersmith trade due to the substitution of new processes and materials for the traditional modes of copper working, Braverman worked in the steel industry and experienced a wide range of skilled jobs. He observes that he was able to find employment in other trades "because the trade of working copper provided the foundation in the elements of a number of other trades" (Braverman, 1974, p. 5).

At the same time Braverman was deeply involved in trade union activities and in the socialist movement. He was co-editor of the American Socialist from its foundation in 1954. After the American Socialist ceased publication in 1959, he started working as an editor at Grove Press where he became vice-president and general business manager. In 1967, he became Managing Director of Monthly Review Press. He worked there until his death on the 2 August 1976 in Honesdale, Pennsylvania.

In some respects, Braverman's book *Labour and Monopoly Capital*, the subtitle of which is *The Degradation of Work in the Twentieth Century*, contains an autobiographic element which, according to Braverman himself, may make the readers conclude that he has been influenced "by a sentimental attachment to the outworn conditions to now archaic modes of labour" (Braverman, 1974 p. 6). Braverman's passionate defense against this possibility reflects an admirable

and rare attempt of finding an equilibrium between life and science based on the awareness of the particular angle from which social reality has been observed.

The central place occupied by creative work in Braverman is immediately evident in the first chapter of *Labour and Monopoly Capitalism* where he restates the Marxian view that "work as purposive action guided by intelligence, is the special product of humankind" (Braverman, 1974, p. 49). Unlike animals, men first conceive ideas and then execute them. Still, where there is the greatness of humankind there is also the potential of its alienation and deprivation of any creativity. The human autonomy of conception from execution implies that the unity of conception and execution in the activities of a single individual may be dissolved: the idea conceived by one person may be executed by another person.

The possibility of a dissolution of the unity between conception and execution is exploited in the employment contract which is the typical social relation of capitalism. By itself, the employment contract involves the sale of labour power or "the power to labor over an agreed period of time" (Braverman, 1974, p. 54). In other words, the employment contract involves that one agent accepts to execute, within certain limits, the actions conceived by another agent.

In the context of the employment relationship the aim of management is to minimize the cost of labour power per unit of product. This involves two problems: the first is to pay as little as possible for the skills of the workers; the second is to make the workers work as hard as possible. Both aims are clearly evident in the principles according to which the division of labour is organized under capitalism.

The division of labour introduced in the capitalist firm destroys occupations and trades subdividing them in meaningless and repetitive operations. It requires an explanation different from the maximization of "learning by doing" involved in the Smithian principles of the division of labour. This explanation was given by Babbage and Taylor and a great merit of Braverman has been to bring it to the attention of literature.

Whereas the Smithian principles of the division of labour rely on the maximization of the "learning acquired by doing", the Babbage principle is

based on the idea that the division of labour should be organized to minimize the "learning and the (strength) required for doing": the more detailed the division of labour, the lower is the skill requirement for each operation. Labour-power can be made cheaper by a detailed division of labour involving job de-skilling. According to Braverman, "applied first to handicrafts and then to mechanical crafts, Babbage's principle eventually becomes the underlying force governing all forms of work in capitalist society, no matter in what setting or at what hierarchical level" (Braverman, 1974, pp. 81-2).

As to Taylor, he realized that the traditional system of management was badly suited to increasing workers' effort. Traditional management relied on the knowledge of the workers in the sense that the managers believed that the workers knew better than they did how to perform their jobs. Under traditional management, the workers could work less than "fairly" by maintaining that a certain time was required to perform a certain job. The situation of "asymmetric information", existing under traditional management, implied that the managers had no means of challenging this sort of statement. Taylor's solution to this problem was straightforward: the managers and not the workers should know how the jobs could be best performed, plan how they should be executed and give the workers detailed instructions about their execution. It was only by gaining the control of the labour process that the managers could invert this situation of asymmetric information and control the workers.

Braverman summarizes the content of Taylorism in three different principles:

- 1) *dissociation of the labour process from the skills of the workers.*
- 2) *separation of conception from execution.*
- 3) *use of this monopoly over knowledge to control each step of the labor process and its mode of execution.*

Observe that Babbage's and Taylor's principles lead to the same conclusion. The dissociation of the labour process from the skills of the workers does not only allow for greater capitalist control but also, following Babbage, cheapens labour by decreasing learning time. In the very same way, the separation of conception and execution does not only imply greater capitalist

control. It also means that fewer people should learn how to conceive and more people should become cheap executors of their decisions - this being, again, also an implication of the Babbage principle. The same detailed division of labour cheapens labour-power and increases capitalist's control over labour and, consequently, workers' effort. For this double reason, according to Braverman, de-skilling jobs is a fundamental tendency of capitalism.

According to Braverman, the analysis of Taylorism is essential to the understanding of the real life capitalist economy because in Taylor's work "lies a theory which is nothing else than an explicit verbalization of the capitalist mode of production" (Braverman 1974, p. 86). This fundamental role of Taylorism is contrasted with the influence of the subsequent management schools of human relations and industrial psychology which, according to Braverman have offered little more than cosmetic adjustments for the underlying principles of capitalist organization. Braverman observes how "Taylorism dominates the world of production; the practitioners of 'human relations' and 'industrial psychology' are the maintenance crew for human machinery" (Braverman 1974, p. 87).

The state of "human machinery", under capitalism, is contrasted by Braverman with that of non-human machinery. He points out how capitalism is characterized "by the incessant drive to enlarge and perfect machinery on the one hand, and to diminish the worker on the other" (Braverman, 1974, p. 228).

The history of machinery is in striking contrast with the history of the workers. Machines acquire first "skills" specific to certain production processes. Then, especially after the electronic revolution, they tend also to acquire "general purpose" abilities. By contrast, the workers, deprived of traditional, craft-specific skills, become "general purpose" not because their abilities are enlarged but because the scope of their jobs is narrowed. Or, in other words, the worker becomes "general purpose" because of job de-skilling: the tasks which they are required to perform are so detailed and simple that each worker can be moved from one job to another without substantial training costs. In this sense, according to Braverman, the worker becomes "a general-purpose machine operated by management" (Braverman, 1974, p. 180). Machinery is also used to control the worker indirectly through the machine. By setting the pace of the

machine the manager can control the effort and the tasks performed by the worker. Conception and execution become even physically separated: management makes machines execute tasks which require the execution of other tasks by the workers. De-skilled workers are increasingly controlled by means of "skilled" machines.

According to Braverman, the drive of the capitalists to cheapen labour and increase control over labour is not limited to a particular sector or to a particular type of job. The job de-skilling consequences of the principles of Babbage and Taylor (as well as of the capitalist use of machinery) are perfectly visible also outside the shop floor and outside industrial production. The service sector, the sales department of industrial firms, secretarial work, the engineering profession, and, even the activity of management itself are also parts of the wide field of application of these principles. This field is not limited by the physical definitions of jobs and sectors. Its extension can go as far as capitalist property rights can shape technology and the organization of work.

Because of the proletarianization of a large part of clerical workers and workers of the service sector, between two-thirds to three-quarters of the workers appear readily "to conform to the dispossessed condition of a proletariat" (Braverman, 1974, p. 403). However, Braverman admits that a considerable number of employees does not easily conform to this definition. Under modern monopoly capitalism we have a mass of people who do not fit into a polar conception of the class structure of society. But the new "middle class" of monopoly capitalism is qualitatively different from the petty-bourgeoisie of pre-monopolist capitalism, which has largely disappeared. The petty bourgeoisie of pre-monopolistic capitalism was middle class in the sense that it was *outside* the process of capital accumulation: its members were neither capitalists nor workers. The new middle class of monopoly capitalism occupies a middle position within the process of capitalist accumulation in the sense that its members share characteristics of *both sides*, the capitalists and the workers. "Not only does it receive its petty share in the prerogatives and rewards of capital, but it also bears the mark of the proletarian conditions (Braverman, 1974, p. 406). The class structure of capitalism is continuously changing. New middle strata of employees

emerge as a consequence of technological and organizational change. In a later stage, the same employees are subject to a process of "rationalization" which implies cheapening of labour power and increasing control over workers on the lines suggested by Babbage and Taylor.

Braverman's work has been criticized for three interdependent reasons. In the first place, Braverman has been criticized for seeing Taylorism as the only typical form of organization under capitalism. Other authors have limited the field of application of Taylorism either to an historical phase of capitalism (Edwards, 1979 and Gordon, Edwards, Reich, 1982) and/or to a certain countries (Elbaum, Wilkinson, 1979 and Littler, 1982) or to certain section of the working class (for a survey see Sawyer 1989, part 2). This point is strictly related to the second criticism: Braverman has ignored successful workers' resistance to Taylorism and the fact that, because or even independently of this resistance, the capitalists themselves have found ways of controlling the workers which are more efficient than Taylorism (Edwards 1979 and Friedman, 1977). Finally, Braverman has been criticized for his thesis that de-skilling has in fact occurred in reality. It has been pointed out that, if some skills have disappeared, new skills have been created in the course of the development of capitalism. The sheer extension of formal training for the majority of the workers seems to prove that re-skilling has occurred (Wood, 1982).

I will start by considering this last objection and I will consider the first two criticisms at the end of this entry.

It is an open issue whether de-skilling has occurred during the development of capitalism. Evidence for both cases of de-skilling and re-skilling has been produced. But this is somewhat beyond the point. Braverman's de-skilling hypothesis could be defended by saying that capitalism has a tendency to de-skill jobs. This tendency may be continuously operating even if technological change and other forces may act in the opposite direction (Sawyer, 1989 p. 64).

This argument can be reinforced if one can show that capitalism has a tendency to over de-skill jobs in comparison to a society defined by a different system of property rights. The first step in this direction is to define this

alternative society - a task which is implicitly attempted in Braverman's work. Although *Labour and Monopoly Capitalism* is about the development of capitalism and not about alternatives to capitalism, it is largely inspired by the belief that it is possible (even if not easy) to create an alternative society where workers can develop their skills and where their needs as producers are taken into account. According to Braverman this requires something more than formal democracy at the workplace. "Without the return of requisite technical knowledge to the mass of the workers and the reshaping of the organization of labour - without, in a word, a new and truly collective mode of production - balloting within factories and offices does not alter the fact the workers remain as dependent as before upon "experts" and can only choose among them, or vote for alternatives presented by them. Thus genuine workers' control has as its prerequisite the demystifying of technology and the reorganization of the mode of production. This does not mean, of course, that the seizure of power within industry through demands for workers' control is not a revolutionary act. It means rather that the true workers' democracy cannot subsist on a purely formal democratic scheme" (Braverman, 1974, p. 445). Or, in other words, a different social system comes into being when the rights acquired by the workers can express themselves in a different technology and organization of work which takes into account their needs as human producers.

Here is a fundamental reason for which Braverman must be considered a major dissenting economist.

Braverman's view of "good society" contrasts with the Pareto optimal world described in orthodox welfare economics. Commenting upon the "technical conditions" realized under capitalism he observes that they are "best adapted to everything but the needs of the people. These needs are, however, are in the world of economists, "externalities" a notion that is absolutely incomprehensible from the human point of view, but from from the capitalist point of view is perfectly clear and precise, since it simply means external to the balance sheet". (Braverman, 1974, pp. 205-6). Under capitalism productivity becomes an end in itself and "It is a measure of the manner in which capitalist standards have diverged from human standards that this situation is seen as representing a

high degree of "economic efficiency". (Braverman, 1974, p. 206). Orthodox economics is not neutral. "Only one who is the *master of the labour of others* will confuse labour power with any other agency for performing a task, because to him, steam, horse, water, or human muscle which turns his mill are viewed as equivalents, as "factors of production". For *individuals who allocate their own labour power* (or a community which does the same) the difference between using labour power as against any other power is a difference upon which the entire "economy" turns" (Braverman, 1974, p.51).

Braverman's criticism can be developed by observing that in orthodox welfare economics leisure and not directly different uses of labour-power enter the utility function of the individuals. It follows that individuals are implicitly assumed to be indifferent among different tasks and that their labour-power can be allocated in a way similar to steel and iron. If workers' preferences do not matter, then technological efficiency or maximum output per unit input is a necessary condition for maximizing social welfare. By contrast if workers' preferences are taken into account, then less output may be preferable to more output if this is associated with more enjoyable work. Similarly, profit maximization is an optimal criterion for allocating work within the firm only if we assume workers' preferences for their own work do not matter. Finally, if the workers are implicitly assumed to be indifferent to alternative allocations of their labour-power, it is even possible to show that job de-skilling is necessarily required to maximize social welfare (Pagano, 1985). In other words the optimal world of neo-classical economics is very closed to Braverman's description of capitalism because it ignores workers' preferences for their own work and Braverman's ideal society is very far from both because it takes full account of these preferences. Still, the optimal world of neoclassical economics could be reformulated by the usual trick of introducing more markets; in particular by assuming that there is a (possibly equilibrium) price for each use of labour. This solution is formally possible but it implies that firms, defined à la Coase (1937), or the employment contract, defined à la Simon (1957) do not exist. If firms exist in the sense that an internal allocation of labour is carried out within the firm, then they should internalize workers' preferences - an

internalization which requires that workers have rights and, consequently, voice and power in the organization. (Pagano, 1985).

Indeed, recent main stream economics and, in particular "New Institutional economics" justifies the efficiency of capitalism by the argument that, in a world of incomplete markets, capitalist ownership of firms can be optimal. Alchian and Demsetz (1972) maintain that in a market economy the property of the firm is efficiently acquired by the "difficult to monitor factors" because they can save more on monitoring costs. Efficiency entitles difficult to monitor capital and managers to own and manage the firm. Alchian (1984, 1987) and Williamson (1985) develop a similar argument by using the concept of asset-specificity. In a market economy the property of the firm is efficiently acquired by the "specific factors". Unlike the owners of "general purpose factors", the owners of firm-specific factors can save more for the costs which should otherwise be sustained to safeguard them, in an uncertain world, from the possible opportunism of the other partners. Managers and capitalists own and manage the firm because they own the relatively more specific factors. Workers will own and manage firms or, at least, will have some rights in the firm only when labour power is a "difficult to monitor and/or specific factor".

Harry Braverman's book contains a working hypothesis dissenting from that of New Institutional economics. Whereas in New Institutional economics the workers have no rights in the firms where they work because they are "easy to monitor" and/or "general purpose" factors, in Braverman's book the workers become "easy to monitor" and "general purpose" factors because, under capitalism, they have no rights in the firm where they work. According to Braverman, it is because of capitalist property rights that the detailed division of labour on the lines suggested by Babbage and Taylor is implemented with the result that the workers perform simple tasks which are easy to control and require only general purpose skills. Under capitalism the development of difficult to monitor human resources is inhibited by the fact that the workers have no rights in and attachment to the organization where they work. Similarly, the development of firm-specific skills, as well as the development of assets specific to the preferences of the present workers, is inhibited by the fact that under

capitalism the rights to these assets are ill defined. These assets belong neither to the employers (who can lose them if the workers quit) nor to the workers (who can lose them if fired).

It is no wonder that under the system of property rights of "classical" capitalism the principle of the minimization of learning required for doing is over-applied whereas the principles of maximizing the learning acquired by doing and work satisfaction are under-applied. Unlike the latter two principles, the former decrease the cost of control and does not favour the development of human firm-specific resources. Under "classical" capitalism, these resources are, in Braverman's words, externalities, in the sense that they are external to the balance sheet, and the principles favouring their development are constrained by the appropriability conditions existing under the property rights of "classical" capitalism (Pagano, 1988).

Finally let us now consider the objections to Braverman concerning the prominence given to Taylorism and the ignorance of workers' resistance. If the workers can acquire new rights that entitle them to have greater control of their jobs, then we obtain a system of property rights different from "classical capitalism". Under this system of rights the tendency to over de-skill jobs may well be reduced. For instance, consider job security which changes the worker from a simple seller of labour-power into a holder of a right in a particular job. The consequent absence of the threat of unemployment and attachment to the organization may mean that effort can be better motivated by making the job more interesting - a task to which Taylorism is badly suited. Moreover, the existence of workers' rights in the firm implies that the workers and the employers will not regard as an externality the development of firm-specific assets which enhance learning by doing and job satisfaction.

The fact that, in some important cases, the workers have acquired rights different from the very limited rights which they have under the model of "classical capitalism" considered by Braverman implies that his conclusions are less universal than they were intended to be. Still, this limit makes his message even more relevant. It is only by acquiring and/or defending rights at the work place that the workers can defend themselves against the tendency, built into

"classical capitalism", to expropriate them of their capacity for ideation and control and that they can acquire skills and a working environment consistent with their needs as workers.

References.

- Alchian A. (1984) Specificity, Specialization and Coalitions. *Journal of Institutional and Theoretical Economics* pp. 34-39.
- Alchian A. (1987) "Property Rights" in J. Eatwell, M. Millgate and P. Millgate eds. *The New Palgrave*, pp. 1031-1034. Macmillan, London.
- Alchian A. A., Demsetz H. (1972) "Production, Information Costs, and Economic Organizations", *American Economic Review*, vol 62, pp. 777-95.
- Braverman H. (1974) *Labour and Monopoly Capital*, Monthly Review Press, New York
- Coase R. H. (1937) "The Nature of the Firm" *Economica* pp. 386-405.
- Edwards R. (1979) *Contested Terrain*. Basic Books New York.
- Elbaum B., Wilkinson F. (1979) Industrial Relations and Uneven Development: a Comparative Study of the American and the British Steel Industries. *Cambridge Journal of Economics*, Vol. 3, No 3, pp. 275-303.
- Friedman A. L. (1977) *Industry and Labour*. Macmillan London.
- Gordon D.M., Edwards R., Reich M. (1982) *Segmented Work, Divided Workers*. Cambridge University Press, Cambridge.
- Littler C. R. (1982) *The Development of the Labour Process in Capitalist Societies*, London, Heineman.
- Marx K. (1967) *Capital*. International Publishers, New York.

- Pagano U. (1985) *Work and Welfare in Economic Theory*. Basil Blackwell, Oxford.
- Pagano U. (1988) Asset Specificity and the Labour Process Literature. Lecture Notes for the I.S.E.R. Workshop on Economic and Institutions. *University of Siena-C. N. R.*, Siena.
- Sawyer M. C. (1989) *The Challenge of Radical Political Economy*. Harvester Wheatsheaf, London.
- Simon H.A. (1957) *Models of Man*. John Wiley, New York.
- Williamson O. E. (1985) *The Economic Institutions of Capitalism*. The Free Press, New York.
- Wood S. (1982) *The Degradation of Work ?* Hutchinson, London.

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