

TAYLORISM: A CRITICAL REASSESSMENT

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Up till now, in an effort to secure political hegemony over the capitalist mode of production, various attempts have been made to forge the ultimate strategy of capitalist control over the labour process. Every one of these strategies has sought to gain, and got, de facto, more effective managerial control at the shopfloor level than existed before. Among them Taylorism, or "Scientific Management," has a deserved reputation as one of the most long-established classics of personnel management theory. However, to appreciate the value of its original idea is not always to endorse its relevance to the present situation of the work-place.

Today it is widely claimed that the theory of Taylorism has been superseded by the subsequent development of management theories, such as Human Relations and Behavioral Sciences, and even more so historically by the mounting campaign for sweeping "the anachronism of Taylorism" away from the shop floor thanks to "a technological revolution" and increasing "opportunities to be one's own boss."¹

Such an unfavourable assessment of Taylorism is most commonly accepted by those on the side of management. Ironically enough, moves for the reassessment of Taylorism have been made in recent years by radical proponents of the labour process theory, whose political stance is quite opposed to that of the management. Most notable among them, of course, is Braverman, who focused his attention on the plight of the working people in the capitalist labour process and contended that scientific management had been a decisive factor in the degradation of work under capitalist control. He put it thus:

Taylor dealt with the fundamentals of the organization of the labor process and of control over it. Taylorism dominates the world of production; the practitioners of "human relations" and "industrial psychology" are the maintenance crew for the human machinery.²

Braverman, put simply, argued that Taylorism is the only theory that consciously reveals the focal point of the capitalist labour process, the need for ever more effective managerial control over that process. These two general attitudes to Taylorism, according to C.R. Littler, create a strange paradox, which he understands as the simple outcome of a failure to realize that "ideologies" or "models" cannot be identical. He insists that Taylorism should be treated not as a mere ideas system, but as the institutionalization of the different ideas systems.³

¹ Special Task Force to the Secretary of Health, Education, and Welfare, Work in America, Cambridge, Mass., 1973, pp. 17-23.

² H. Braverman, *Labor and Monopoly Capital*, New York, 1974, p. 87.

³ C. R. Littler, "Understanding Taylorism" *British Journal of Sociology*, Vol. 29, No. 2, June 1978.

However, the point is not the institutionalization, as Littler puts it. It is more important to note that we cannot separate the institution from the ideas system which is incorporated into it. It is not a matter of a particular type of institution but of the driving forces behind the scene and the underlying principles of the whole structure. It is necessary to take a critical look at Taylorism, in other words, to uncover the political aim of Taylorism, to identify its unique features and to dispose of its hidden agenda. Taylorism, as a strategy of capitalist management, is not immune from the independent institutional motivation but from the particular political one behind it. Braverman's failure, if any, in his handling of Taylorism, is not because of the fact that he treated it as an ideas system or a strategy of capitalist control (as Littler put it), but because of the fact that he did not place it in the overall context of the development of capitalist managerial theories.

Braverman's pioneering study shows us that Taylorism is nothing less than a set of principles of capitalist control over workers, but fails to pinpoint what aspect of the labour process Taylor thought should be changed for the exercise of effective control, i.e. greater intensification of labour. Needless to say, there exist various ways to achieve capitalist control (its ultimate goal is the overall subordination of labour to capital), and Taylorism is only one of them. It is most important to see under what circumstances and where Taylorism is heading. We can no longer underestimate it or portray it as a historic episode, as Edwards put it.⁴ Nor can we accept it as the ultimate strategy of capitalist control, as Braverman put it. Much less can we ascribe it to the Weberian concept of bureaucracy, as Littler did.⁵ So, first of all, we have to identify some features of Taylorism, and in doing so, we must bear in mind that, as Kelly properly put it, it is required to start not from conceptualized Taylorism, but from conceptualizing it.⁶

This paper attempts to make a critical reassessment of Taylorism; to read it within Marx's conceptual framework of labour intensification; and to make clear its political implications as a strategy of capitalist control.

* The following quotations from Marx are only from his *Capital*. References are placed immediately after any quotation, and give first the volume, second the page numbers in the Penguin editions.

The other quotations are from Taylor's works. References are also placed immediately after any quotation, and give the page numbers in the Harper & Brothers editions (F.W. Taylor, *Scientific Management*, with a Foreword by H.S. Person, Harper & Brother, New York and London, 1947). As to his early article, "A Piece Rate System" (1895), quotations are made from his *Two Papers on Scientific Management*, George Routledge & Sons, London, 1919.

I

Taylorism as a strategy of capitalist control is the standard trick which makes it possible for the capitalist to increase artificially and systematically the prevailing degree of

⁴ R. C. Edwards, *Contested Terrain*, New York, 1979, chap. 6.

⁵ C. R. Littler, *The Development of the Labour Process in Capitalist Societies*, London, 1982, pp. 37-63.

⁶ J. E. Kelly, "Understanding Taylorism; some comments," *British Journal of Sociology*, Vol. 29, No. 2, June 1978.

intensity of labour. At the outset, Taylor intended to achieve his aim by introducing a differential piece rate system. In 1895 he published his first article, "A Piece Rate System," in which he acknowledged, as to the intensity of labour, the great difference among workers, and advocated the introduction of the differential rate system of piece-work so as to fix every individual's wage according to the skill and energy with which the individual performs his/her work, in other words, according to his/her own degree of labour-intensity. It should be noted that the piece-wage has characteristically two distinctive features. As Marx states:

The wider scope that piece-wages give to individuality tends to liberty, independence and self-control, and also the competition of workers with each other. (I, p. 697)

As to what Marx indicates in the first part of this statement, Taylor proclaimed that with his system, "the form of co-operation has been devised in which each individual is allowed free scope for his personal ambition" (p. 52).

What he tells us here is not an absolute truth but a relative one, relative to other wage forms such as time-wages etc. The "free" scope which is promised here holds only in such a relative sense.

It is, if anything, the second feature of the piece-wages system from which the capitalist expects so much. Taylor puts it plainly,

A great advantage of the differential rate system is that it quickly drives away all inferior workmen, and attracts the men best suited to the class of work to which it is applied; since none but really good men can work fast enough and accurately enough to earn the high rate. (pp. 67-8)

It should be evident from this statement that the differential piece-wages system is designed purely to introduce fierce competition among workers and to obtain highly intensified labour.

No doubt, Taylor is not the first to devise an elaborate system which enforces the intensification of labour. Marx, quoting from T. J. Dunning's *Trades' Unions and Strikes*, takes the example of the engineering trade in London, where a customary trick was to select a man who possessed superior physical strength and quickness and pay him an additional rate, by the quarter or otherwise, on the understanding that he was to exert himself to the utmost to induce the other workmen around him, who were only paid the ordinary wages, to keep up with him (I, pp. 695-6).

Compared with this customary trick, it is clear that the focal point of Taylor's new system is not its form or appearance, but its substance or unique practice, i.e. the systematic analysis of work into its simplest constituent elements and the establishment of standard times for every task as the basis for the calculation of production costs.

It is a far simpler task to resolve each job into its elements, to make a careful study of the quickest time in which each of the elementary operations can be done, and then to properly classify, tabulate, and index this information, and use it when required for rate-fixing, than it is to fix rates, with even an approximation of justice, under the common system of guessing. (p. 57)

The prominent feature of Taylorism is its imposition of the time study for the exact measurement of the intensity of labour. Indeed, the time study, which enables the management to subdivide every kind of job into its elementary operations, is the most effective and appropriate tool for measuring the intensity of labour. It is quite important that Taylor's belief that the work should be composed of various combination of elementary operations, which can be timed exactly by the proper method, is particular to the age of modern industry, because it understands productive labour only from the technological point of view. As Marx states,

Technology discovered the few grand fundamental forms of motion which, despite all the diversity of the instruments used, apply necessarily to every productive action of the human body, just as the science of mechanics is not misled by the immense complication of modern machinery into viewing this as anything other than the constant re-appearance of the same simple mechanical processes (I, p. 617)

Without the discovery of "the few grand fundamental forms of motion," there would be no such things as the Taylorite motion-time study.

The motion-time study is *the* great innovation of Taylorism, with which the management can now enforce ever greater labour-intensification on workers and at the same time pretend to be "scientific" as well as technological. The real reason why "the differential rate system of piece-work" seems "to be by far the most effective in obtaining the maximum output of a shop" is that, with the help of that study, he can now easily enforce "the quickest time in which work can be done" as standard (p. 62). Taylor expresses his idea clearly.

The lower differential rate should be fixed at a figure which will allow the workman to earn scarcely an ordinary day's pay when he falls off from his maximum pace, so as to give him every inducement of work hard and well. (p. 65)

It is obvious where the secret of "the maximum output of a shop" lies. Taylor sets the quickest time as the new standard level by choosing the most efficient or "first class" workman in the shop. When the workman produces the expected output, or he performs his full task as required by the new standard, an extra premium is given to him. However, strangely enough, the rate of this premium is calculated not on the basis of alleged output (efficiency achieved by the worker), but on the basis of the supply and demand of the labour market at the time—the condition under which the workers exact the value of their own labour-power from the capitalists.

The exact percentage beyond the usual standard which must be paid to induce men to work to their maximum varies with different trades and with different sections of the country. And there are places in the United States where the men (generally speaking) are so lazy and demoralised that no sufficient inducement can be offered to make them do a full day's work. (pp. 65–6)

As is clear above, in *Piece Rate System*, one of Taylor's early works, we can find one of the distinctive features of Taylorism. Firstly, its historical emergence presupposes the technological insight into the labour process, which will lead to the creation of the time study of the elementary operations of various types of jobs. If we describe Taylorism as

“scientific” management, it is because it presupposes the technological attitude towards the labour process which is characteristic of the age of large-scale industry. Secondly, its political aim is to take ultimate command of the intensity of labour, which appears unmistakably in his own way of setting the standard. In that respect, Taylorism is nothing less than a strategy of capitalist control, i.e. scientific “management.” In his second work, *Shop Management*, and in his third one, *The Principles of Scientific Management*, we can trace two aspects, i.e. “scientific” as well as “managerial” ones, which form the very core of his argument in his elaborate style under the name of “task management”.

II

In 1903, Taylor published his *Shop Management*, in which he named his strategy “task management.” He introduces it as following;

Broadly speaking, in the field of management there are two parties—the superintendents, etc., on one side and the men on the other, and the main questions at issue are the speed and accuracy with which the work shall be done. Up to the time that task management was introduced in the Midvale Steel Works, it can be fairly said that under the old systems of management the men and the management had about equal weight in deciding how fast the work should be done. (By contrast,) The essence of task management lies in the fact that the control of the speed problem rests entirely with the management. (p. 44)

Namely, he insists that the target of task management is to have total command of the speed and accuracy of the labour process.

Here the real political issue is who can eventually seize the power to control the labour process, “the superintendents” or “the men.” Taylor has no illusions about this struggle for power:

I can hardly conceive of a case in which a union could prevent the boss from ordering the man to put his driving belt just where he said and using just the feed that he said, and in doing that the workman can hardly fail to get the work out on time. No union would dare to say to the management of a works, you shall not run the machine with the belt on this or that cone step. They do not come down specifically in that way; they say, “You shall not work so fast,” but they do not say, “You shall not use such and such a tool, or run with such a feed or at such a speed.” However much they might like to do it, they do not dare to interfere specifically in this way. (pp. 193–4)

Here he is talking about the possibility of usurping the power and control of the workers. To achieve this aim, “task management” assumes three steps. The first step is to set the new standard level, the second, to design the task, and the third, to reward for the achievement of the task. These steps are inextricably interlinked with three different aspects of the labour process—conception, execution, and evaluation. The control over conception, over what and how much is to be done, takes the form of standard-setting or

setting a goal to be achieved. The control over execution, over how and with what degree of intensity the work should be done, takes the form of designing the tasks which are to be performed. And the control over evaluation, over what and how much has been done, takes the form of rules for reward and punishment, like a carrot and stick approach. “Task management” therefore could be described as the establishment of capitalist control over every aspect of the labour process. The reason Braverman acknowledged Taylorism as embracing the ultimate principles of capitalist strategy of control is that he recognized its hidden agenda, i.e. the question of which side takes total control of the labour process and how. However, despite Braverman’s positive insight, we should not miss the underlying theme of Taylorism as a management or control strategy, designed to force intensified labour out of the worker by merely expanding his/her capacity to work.

a. Setting a Standard

In his first work, *A Piece Rate System*, Taylor outlined his idea that we can break down any job into its constituent elements, and by making a time study on each one of them, we can set an exact new standard as well. Taking a step forward, in his second work, *Shop Management*, he claimed that the new standard should be so high that no more than one out of five labourers could keep up with it (pp. 54–5). He also stressed that it should be set on the basis of the quickest time of a first-class man (p. 59), and that the new task should be arranged to be so difficult that it can only be accomplished by a first-class man, etc.

In his *Shop Management*, we find an interesting passage where Taylor seems uncertain when he tries to answer the obvious question of why the standard should be newly set on the basis of the highest efficiency of the first-class man, and not on the basis of the average efficiency of the ordinary worker. Taylor answers it as following;

The difference between the best speed of a first-class man and the actual speed of the average man is very great. One of the most difficult pieces of work which must be faced by the man who is to set the daily tasks is to decide just how hard it is wise for him to make the task. Shall it be fixed for a first-class man, and if not, then at what point between the first-class and average? One fact is clear, it should always be well above the performance of the average man, since men will invariably do better if a bonus is offered them than they have done without this incentive. The writer has, in almost all cases, solved this part of the problem by fixing a task which required a first-class man to do his best, and then offering a good round premium. When this high standard is set it takes longer to raise the men up to it. But it is surprising after all how rapidly they develop. (pp. 174–5)

More remarkable is the following passage;

The precise point between the average and the first-class, which is selected for the task, should depend largely upon the labour market in which the works is situated. If the works were in a fine labour market, such, for instance, as that of Philadelphia, there is no question that the highest standard should be aimed at. If, on the other hand, the shop required a good deal of skilled labour, and was situated in a small country town, it might be wise to aim rather lower. There is a great difference

in the labour markets of even some of the adjoining states in this country, and in one instance, in which the writer was aiming at a high standard in organizing a works, he found it necessary to import almost all of his men from a neighbouring state before meeting with success. (p. 175)

Quite in the same way as he fixes the rate of piece work and premium according to the situation of the labour market, Taylor assumes a standard against which the intensified labour could be classified only by means of the relative political strength of the two sides (capital and labour) in the labour-market.

What he expects here is to fix the standard or normal degree at the highest level of "first-class" men. It is important to note that his proposed standard is not fixed but adjustable in itself. Indeed it fluctuates from time to time between the highest rate of efficiency of "first-class men" and the lowest one of "inferior workmen." What Marx said about the establishment of a normal working day is also true for this case. When the capitalist tries to increase labour efficiency as much as possible, and, if possible, to regard the highest degree of the "first-class workman" as the conventional norm of labour intensity, he maintains his rights as a purchaser. On the other hand, the peculiar nature of the commodity sold, i.e. the labour power, implies a limit to its consumption by the purchaser, i.e. the capitalist, and the worker maintains his right as a seller when he wishes to put a certain limit on the normal degree of labour intensity.

There is here, therefore, an antinomy of right, both parties equally bearing the seal of the law of exchange. Between equal rights, force decides. (I, p. 344) Therefore, in the long history of the development of Taylorism, the standardisation of labour intensity presents itself as a political struggle over the establishment of the normal degree of labour intensity, a struggle between collective capital, i.e. the capitalist class, and collective labour, i.e. the working class. The first scene of the struggle is beginning to unfold with the orchestrated campaign for the new Taylorite standard.

b. Designing a Task

In *The Principles of Scientific Management*, his third work, published in 1911, Taylor took several different examples of the labour process and studied carefully how to exert task management on them. Five examples are given here—the work of handling pig iron, that of shoveling, bricklaying, inspecting of steel balls, and metal-cutting.

The first step in putting task management into practice is to fix a new standard for each circumstance. For example, in the work of handling pig iron, a new rate is fixed to the limit of physical ability (47 tons per day). In the case of shoveling, within the limits of physical capacity, it is assumed that "the shovel load" for a first-class man could extract "his biggest day's work" (according to Taylor, 21 pounds a shovel) and the workman who is expected to be able to achieve such a load should be carefully selected and assigned a newly designed task to be performed in a given time and in the previously arranged way.

The next step is to give the new task to a proper worker. In the case of handling pig iron, Taylor chose a workman named Schmidt, who "worked when he was told to work, and rested when he was told to rest, and at half-past five in the afternoon had his 47.5 tons loaded on the car" (p. 47). According to Taylor, the pig-iron handler should be persuaded

“to work in accordance with the science of doing heavy labouring, namely, having proper scientifically determined periods of rest in close sequence to periods of work” (p. 63). In the case of shoveling as well, having observed not only “the shovel load” but also “the other elements” such as “how quickly a labourer can push his shovel into the pile of materials and then draw it out properly loaded” (p. 67), Taylor instructed the workman to follow the exact methods as to the performance of his own tasks.

Task-designing is broadly termed the “standardisation of task,” the “standard” being neither constant nor definite, but fluid according to the situation. The hidden aspect of the “standardisation” comes out in the case of bricklaying, the best example of standardisation. The standardisation of bricklaying was originally a tentative idea by F. B. Gilbreth.

Through all of this minute study of the motions to be made by the bricklayer in laying bricks under standard conditions, Mr. Gilbreth has reduced his movements from eighteen motions per brick to five and even in one case to as low as two motions per brick.” (p. 79)

It is the main object of Gilbreth’s study to remove “the waste of effort” (p. 78) from the labour process. And it is also Taylor’s interest to eliminate “each of these unnecessary motions” (p. 82). According to him,

It is only through enforced standardisation of methods, enforced adoption of the best implements and working conditions, and enforced cooperation that this faster work can be assured. And the duty of enforcing the adoption of standards and of enforcing this cooperation rests with the management alone. (p. 83)

It is obvious that the word “standardisation” connotes efficiency for the management, and under the managerial dominance over the labour process, it is necessary for them both to force the standard work (elementary operations and their quickest time) on every one of the workers and to eliminate the wasteful work. It is evident that the word “waste” means different things to different people. Marx’s insight into the development of the division of labour inside the factory is highly suggestive of this kind of difference.

A craftsman who performs the various partial operations in the production of a finished article one after the other must at one time change his place, at another time his tools. The transition from one operation to another interrupts the flow of his labour and creates gaps in his working day, so to speak. These close up when he is tied to the same operation the whole day long; they vanish in the same proportion as the changes in his work diminish. The resulting increase of productivity is due either to an increased expenditure of labour-power in a given time — i.e. increased intensity of labour—or to a decrease in the amount of labour-power unproductively consumed. The extra expenditure of power required by every transition from rest to motion is compensated for by prolonging the duration of the normal speed of work, when once acquired. As against this, however, constant labour of one uniform kind disturbs the intensity and flow of a man’s vital forces, which find recreation and delight in the change of activity itself. (I, p. 460)

Although "the waste of work" might be something horrific to the management, it is not necessarily so to the worker. Although "the gaps in his working day" might be a blockage of the path to "the resulting increase of productivity," it is the prime fount of "the intensity and flow of a man's vital forces" from the point of view of the worker. Therefore, while the capitalist has got "an increased intensity of labour" by means of "the duration of the normal speed of work, when once acquired," the worker loses substantial space and opportunity for free motion. Taylor insists, later in his *Testimony*, that the elimination of unnecessary motions is an enormous saving in effort, so that the workmen are working far less hard. This is Taylor's sophistry, for the substantial gains obtained through the elimination of certain motions neither belong to the workers, nor allow them to catch their breath in the labour process, but are taken away by the capitalist and are transformed into additional productive activity. In short, a newly designed task means an elimination of waste for the capitalists, and an increased intensity of labour for the workers.

Taylor's task-designing presupposes the modern science of technology can resolve any job into its constituent grand mechanical motions. But, however technological and scientific his argument might appear, the hidden agenda of Taylorism is to take advantage of this technological achievement and to drive the worker forwards ever increasing intensification of labour. Indeed, the technological fact that modern science can at last discover the mechanical composition of human labour (a set of elementary operations) can justify neither the coercive rule to enforce the maximum physical load in the quickest time upon the worker, nor the hegemony of the management to eliminate the gaps in motions from the labour process for the benefit of the management. What degree of labour-intensity can be accepted as a social standard will depend on the result of a struggle over the scale and extent of task-designing strategy, a struggle between the capitalist class (or the managers, the representatives of the capitalists) and the working class.

c. Reward and Punishment

As is stated above, the first step of task management is to set new standards in the form of the quickest time of the "first-class" workman, and the second one is to design new tasks, eliminating unnecessary motion as much as possible. However, that is not all. The control over assessment, the third element of task management, has to be introduced as the rules of reward and punishment. Assessment of the output of the labour process originally appears as a self-judgement by the worker on the result of that process. In that sense, it is an exclusively personal affair. By the introduction of task management, much has been changed. According to Taylor, there exist only two kinds of people—the one who can accomplish his full task and the other who can not. The former is to be paid an extra premium or bonus, while the latter should suffer a fine or a lowering of wages. There is no other method of assessing alienated labour under the capitalist mode of production. As Marx puts it;

The overseer's book of penalties replaces the slave-driver's lash. All punishments naturally resolve themselves into fines and deductions from wages, and the law-giving talent of the factory Lycurgus so arranges matters that a violation of his laws is, if possible, more profitable to him than the keeping of them. (I, p. 550)

This is also true for Taylor's particular method of assessment of workers' effort. What Taylor regards as "a method of disciplining the workmen" under task management is a system of fining, with dismissal as a last resort.

Discharging the men is, of course, effective as far as that individual is concerned, and this is in all cases the last step; but it is desirable to have several remedies between talking and discharging more severe than the one and less drastic than the other. (p. 197)

In laying a man off, also, the employer is apt to suffer as much in many cases as the man, through having machinery lying idle or work delayed. (ibid.)

In the writer's experience, the fining system, if justly and properly applied, is more effective and much to be preferred to either of the others. (ibid.)

In certain cases the fining system may not produce the desired result, so that coupled with it as an additional means of disciplining the men should be the first and second expedients of "lowering wages" and "laying the men off for a longer or shorter time." (p. 199)

As to what the fine could be collected for, Taylor pretends to be on the worker's side.

In many cases the writer has first formed a mutual beneficial association among the employes, to which all of the men as well as the company contribute. An accident insurance association is much safer and less liable to be abused than a general sickness or life insurance association; so that, when practicable, an association of this sort should be formed and managed by the men. All of the fines can then be turned over each week to this association and so find their way directly back to the men. (p. 198)

In this proposed plan, it is the workman who has to shoulder the managerial responsibility for compensation which he has the right to claim for an accident suffered during the performance of his own job. With such a plan, the management, who ought to have prime responsibility, can handle the matter so shrewdly that "a violation of his laws is, if possible, more profitable to him than the keeping of them." This is why we call Taylor a factory Lycurgus in our time.

Of course, the factory Lycurgus does not only treat the workers with the stick. But carrots are fed only to those first-class men who can raise the productivity by two or three times, while the less productive labourer is, by contrast, disdainfully referred to as "a bird that can sing and won't sing." Taylor dares to say that "no man who can work and won't work has any place under scientific management" (p. 175). Indeed, the rate of the extra-wages which the first-class men are luckily awarded is only within the limited range of 30 to 100 per cent. So it must be pointed out that the extra-wage system is quite a poor carrot with which to entice the workers into total subservience, and most of the benefit from the increase of output has fallen into the hands of the management.

III

Taylor tries to pretend that Scientific Management brings maximum prosperity not only to the employer but to the employee as well. Two major points of his argument are quite clear—one is the claim that it is for workers' benefit to accept "a fair day's work" and the other is the belief that a higher wage as an incentive is compatible with lowering labour cost.

a. "A Fair Day's Work"

As is stated above, the strategic target of Taylorism is to eliminate "the systematic soldiering" of trade unionism and to extract highly intensified labour from the workers. How to exert an enforced productivity on that working class who show their solidarity by reducing the output, or how to persuade them into total subservience, is the ideological problem of Taylorism. Taylor starts as follows;

The most serious of the delusions and fallacies under which workmen, and particularly those in many of the unions, are suffering is that it is for their interest to limit the amount of work which a man should do in a day. (p. 188)

In forcing their members to work slowly they use certain cant phrases which sound most plausible until their real meaning is analyzed. (p. 189)

Then, he moves to the next step to persuade them to stop the soldiering.

They continually use the expression, "Workmen should not be asked to do more than a fair day's work," which sounds right and just until we come to see how it is applied. The absurdity of its usual application would be apparent if we were to apply it to animals. Suppose a contractor had in his stable a miscellaneous collection of draft animals, including small donkeys, ponies, light horses, carriage horses and fine dray horses, and a law were to be made that no animal in the stable should be allowed to do more than "a fair day's work" for a donkey. The injustice of such a law would be apparent to every one. The trades unions, almost without an exception, admit all of those in the trade to membership—providing they pay their dues. And the difference between the first-class men and the poor ones is quite as great as that between fine dray horses and donkeys. In the case of horses this difference is well known to every one; with men, however, it is not at all generally recognized. When a labour union, under the cloak of the expression "a fair day's work," refuses to allow a first-class man to do any more work than a slow or inferior workman can do, its action is quite as absurd as limiting the work of a fine dray horse to that of a donkey would be. (pp. 189–90)

However, it is not a "fine dray horse" but the "contractor" himself who is caught by a feeling of absurdity. As far as "a fair day's work" is concerned, the key issue is whose performance should be the standard against which each worker could be classified and

how the management, on the basis of the idea of Scientific Management, would treat those workers who can not reach that standard. Taylor himself criticizes taking a donkey as a standard. Yet if we, within his context, take a "fine dray horse" (a first-class workman) as a standard, all the rest, donkeys, ponies, light horses, and carriage horses, are to be branded as the slow or inferior ones. When he was questioned in his *Testimony* about his idea of how to treat those who are not first-class workmen, he was at a complete loss to find a proper answer and conceded carelessly that such a workman should be expelled from the shop floor (pp. 175–6). Taylor referred to such a workman as "a bird that can sing and won't sing," and proclaimed that no man who can work and won't work has any place under scientific management (p. 175). It is now clear which, horses or a contractor, can benefit from Taylor's scheme of "a fair day's work." As is clear above, "a fair day's work," even from Taylor's account, is done only by a first-class worker. How could a proper day's work actually be defined for the "first-class worker"? We can find its answer in the pig-iron case where a new standard (48–9 tons a day) has to be set in the handling of it.

When put into practice, "the writer [Taylor] realized that the greatest obstacle to harmonious cooperation between the workmen and the management lay in the ignorance of the management as to what really constitutes a proper day's work for a workman" (p. 53). Taylor was well aware that there was a scientific rule regulating the maximum day's work for a first-class worker, and he tried to grasp it. What he discovered was "the law governing the tiring effect of heavy labour on a first-class man" (p. 57). "For example, when pig iron is being handled (each pig weighing 92 pounds), a first-class workman can only be under load 43 per cent of the day. He must be entirely free from load during 57 per cent of the day" (p. 57). It is because "throughout the time that the man is under a heavy load the tissues of his arm muscles are in process of degeneration, and frequent periods of rest are required in order that the blood may have a chance to restore these tissues to their normal condition" (p. 58).

To repeat again, what "a fair day's work" means from Taylor's context is nothing less than the maximum day's work for a first-class workman" (p. 55), and this indicates the fully expanded limit of the physical capacity of the labourer.

The intensity of labour can be stretched to the limit. This limit is definable in two ways, first physically and physiologically, second culturally and historically. In the former sense, it means the bodily functions within which the human organism, whether the muscles or the nerves, can be physically sustainable, or within which the worker can not be so much worn-out as to reproduce his labour-power in his daily life. The latter, on the other hand, is the moral sense, in that the worker should be protected from the abuses of managerial power lest he might be forcibly overworking, or that the worker has the basic right to work decently by historically and politically achieved standards. These two sorts of boundary within which the decency of the labour process, or the humanisation of labour, can be secured are extremely vague and leave room for a variety of interpretations. In this respect, "a fair day's work" done by the "first-class man" represents the most extreme case where the management discards openly the moral standard and the workers are reduced to such excessive overwork that physical recovery is barely possible. It is quite clear that no one wishes to risk his/her own health to accomplish such "a fair day's work." So, Taylor puts it;

In securing the above rate of speed it must be clearly understood that the problem is not how to force men to work harder or longer hours than their health will permanently allow; but, rather, first, to select among the labourers which are to be found in every community the men who are physically able to work permanently at that job, and at the speed mentioned, without danger to their health, and who are mentally sufficiently inert to be satisfied with the monotony of the work, and then, to offer them such inducements as will make them happy and contented in doing so. (pp. 74-5)

That was the man selected by Taylor, a little Pennsylvania Dutchman named Schmidt, "who appeared to be physically able to handle pig iron at the rate of 47 tons per day" (p. 43), and at the same time, "so stupid and so phlegmatic that he more nearly resembles in his mental make-up the ox than any other type" (p. 59).

b. "High Wages and a Low Labor Cost"

Carrying banners proclaiming his belief for friendly cooperation between capital and labour, Taylor advocates a reconciliation between "high wages and a low labour cost," and insists that the capitalist and the workers share the same value. For example, in his "Piece Rate System" he describes the differential piece rate system as being in the worker's favour as much as the employer's, by paying a premium for high efficiency (p. 33). And under task management, later in his work, it is maintained that "the greatest permanent prosperity for the workman, coupled with the greatest prosperity for the employer" (p. 11) can be achieved by "the training and development of each individual in the establishment, so that he can do (at his fastest pace and with the maximum of efficiency) the highest class of work for which his natural abilities fit him" (p. 12).

However, how can this be the case? Can the system really harmonize the opposing interests of the workmen and the management?

In support of his theory of "the economy of paying high wages under the differential rate" (p. 77), Taylor sets out the following table.

Ordinary system of piece-work		Differential rate system	
Man's wages	\$2.50	Man's wages	\$3.50
Machine cost	\$3.37	Machine cost	\$3.37
Total cost per day (5 pieces produced)	\$5.87	Total cost per day (10 pieces produced)	\$6.87
Cost per piece	\$1.17	Cost per piece	\$0.69

Under the new system, the output per day doubles (from 5 to 10 pieces produced), and the cost per piece is reduced to half (from \$1.17 to \$0.69) while workman's new wage is only one dollar extra, far from being doubled. In Taylor's differential rate system, the problem is not only how to make a pie larger, but also how to share the enlarged pie, or how to make the capitalist's share greater than the workers'. By putting the first question in the foreground of readers' attention, Taylor cunningly succeeded in hiding the latter question behind the scene. It is necessary here to note that the rate of premium doesn't depend on how much can be produced, i.e. the enlarged size of pie. Let's look at this more closely.

The first-class man can do in most cases from two to four times as much as is done by an average [not inferior] man. (p. 24) First-class men are not only willing but glad to work at their maximum speed, providing they are paid from 30 to 100 per cent, more than the average of their trade (p. 25).

He says here that the increase in productivity of "from two to four times" corresponds with the premium of "from 30 to 100 per cent". However, this is unsustainable. If you enforce twice as much work as before on the worker, you must pay him twice the extra premium. The persuasiveness of Taylor's motto, "high wages and a low labour cost" will collapse once we fully realize that he has been treating these factors as two independent variables. For fear that his hidden agenda might be uncovered, he made every effort to keep it secret. His answers to our crucial questions are nothing but clever evasion.

Firstly, as a preaching;

It is the writer's judgment, on the other hand, that for their own good it is as important that workmen should not be very much over-paid, as it is that they should not be under-paid. If over-paid, many will work irregularly and tend to become more or less shiftless, extravagant, and dissipated. It does not do for most men to get rich too fast. The writer's observation, however, would lead him to the conclusion that most men tend to become more instead of less thrifty when they receive the proper increase for an extra hard day's work, as, for example, the percentages of increase referred to above. They live rather better, begin to save money, become more sober, and work more steadily. And this certainly forms one of the strongest reasons for advocating this type of management. (p.27)

Secondly as an excuse;

At first workmen cannot see why, if they do twice as much work as they have done, they should not receive twice the wages. When the matter is properly explained to them and they have time to think it over, they will see that in most cases the increase in output is quite as much due to the improved appliances and methods, to the maintenance of standards and to the great help which they receive from the men over them as to their own harder work. They will realize that the company must pay for the introduction of the improved system, which costs thousands of dollars, and also the salaries of the additional foremen and of the clerks, etc., in the planning room as well as tool room and other expenses and that, in addition, the company is entitled to an increased profit quite as much as the men are. All but a few of them will come to understand in a general way that under the new order of things they are cooperating with their employers to make as great a saving as possible and that they will receive permanently their fair share of this gain. (pp. 131-2)

Why do the workers have to pay the cost of the stick with which "the factory Lycurgus" beats them up?

Lastly as a sophism,

Doubtless some of those who are especially interested in working men will complain because under scientific management the workman, when he is shown how to do

twice as much work as he formerly did, is not paid twice his former wages. (p. 135) It does seem grossly unjust when the bare statement is made that the competent pig-iron handler, for instance, who has been so trained that he piles 3.6 times as much iron as the incompetent man formerly did, should receive an increase of only 60 per cent in wages. It is not fair, however, to form any final judgment until all of the elements in the case have been considered. At the first glance we see only two parties to the transaction, the workmen and their employers. We overlook the third great party, the whole people,—the consumers, who buy the product of the first two and who ultimately pay both the wages of the workmen and the profits of the employers. (p. 136)

In the past hundred years, for example, the greatest factor tending toward increasing the output, and thereby the prosperity of the civilized world, has been introduction of machinery to replace hand labour. And without doubt the greatest gain through this change has come to the whole people—the consumer. (ibid.)

And this result will follow the introduction of scientific management just as surely as it has the introduction of machinery. (p. 137)

So much for such sophistry. We end our discussion here by asking him two questions, 1. Why is it right to muddle the problem of labour-intensification with that of the increase of labour-productivity?⁷ 2. Why must the worker endure such unfair treatment, and hand a part of his/her entitlement over to the capitalist, in order to pretend the consumer gains the most?

IV

Thus far, we have looked at Taylorism as a typical strategy of capitalism, the aim of which is to give the management every possible power, as well as tactics, to raise the prevalent degree of intensity of labour. As is the case with Fordism, it intends to raise the productivity through changing the particular conditions of the labour process—the way in which the mediating process between the subjective factor, i.e. the worker as an individual, and the objective ones, i.e. machine, tools and materials as means of production takes place. How much, and what kind of means of production can he or she deal with? That is the point in both cases. Either strategy is designed to revolutionize the direct relation between productive labour and means of production. However, while Fordism tries to achieve this aim mainly by changing the objective side, namely by introducing a new transfer-machine, or standardizing tools and raw materials etc., Taylorism, on the other hand,

⁷ It should be noted that the productivity of labour is a totally different thing from the intensity of labour.

As Marx puts it:

Increased intensity of labour means increased expenditure of labour in a given time. Hence a working day of more intense labour is embodied in more products than is one of less intense labour, the length of each working day being the same. Admittedly, an increase in the productivity of labour will also supply more products in a given working day. But in that case the value of each single product falls, for it costs less labour than before, whereas in the case mentioned here that value remains unchanged, because each article costs the same amount of labour as before. (I, pp. 660–1)

stresses the need to intensify labour by changing the subjective attitude of the labourer and simply demanding the condensation of labour within a given time. In other words, while Taylorism makes it possible for the management to set more labour-power in motion by way of the enforced discipline over individual workers, in Fordism, as a result of introducing the assembly line and an overall standardisation of tools and materials, the maximum surplus-value can be consequently extracted from each worker. Taylorism requires an elaborate code of discipline. Fordism replaces it with a whole system of objective artifacts.

Although they differ in tactics, the strategies of both Taylorism and Fordism have the same character in that they draw on the material or physical conditions of the labour process. Entirely different from them are the Human Relations theory and other similar approaches. In their belief, the achievement of productivity heavily depends on the organizational or "informal" conditions of the labour process. Consequently their tactics concentrate on how to change the social relationships among workers, vitalizing the sociability of every worker to promote overall efficiency.

Contrary to the popular notion, this approach to the informal aspect of the labour process is not unique to the Human Relations school. If we look at the following description, it becomes clear that this approach was quite common to the capitalists of Marx's time as part of their belief that "one active and cheerful spirit which pervades the whole mill, from the youngest piecer to the oldest hand" makes an enormous increase of productivity possible and enables the capitalist to "save the cost of coal, gas and other such items" (I, p. 536).

In contrast to the organizational or social-relational approach, Taylorism tries to encourage competition among the workers, and by doing so, to exploit individual labour-power as much as possible. Human Relations theory concentrates its attention on the social formation of the labour process, treats the worker somehow as a social being, and by doing so, widens the strategic horizon. This does not mean that Taylorism has been outdated by the new approach of Human Relations theory—they differ greatly in their managerial dimensions. But this difference only means that capitalism has extended its control and dominance from the technical aspect of the labour process to the social one. The capitalist has appropriated the proper science of control, i.e. the theory of personnel management, at a very crucial time when the further development of the labour process couldn't be imagined without changing its existing social and organizational strait jacket.

Thus, every type of managerial strategy has good reason to coexist within the general framework of capitalist control. As for Taylorism, it is still a matter of considerable importance in any situation where the focal point is to change the subjective condition of the labour process in order to gain greater control over it.