

Global Issues

Rationalisation

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*Translated from the French
by William Tilleczek*

The word “rationalisation” is rather vague. It designates methods of industrial organisation – ones that are more or less rational – which currently reign in the factories in various forms. Indeed, there are several methods of rationalisation, and each boss applies them in his own manner.¹ But they all have some points in common, and all make claims to science, in the sense that methods of rationalisation are presented as scientific methods for the organisation of labour [*travail*].²

At first, science was nothing other than the study of the laws of nature. It intervened later in production via the invention and the fine-tuning of machines, and via the discovery of procedures that made it possible to make use of natural forces. Finally, in our era, towards the end of the previous century, one began thinking of applying science not only to the use of natural forces, but to the human force of labour. This is something completely new, whose effects we are beginning to perceive.

The term “industrial revolution” is often used to designate precisely the transformation that took place in industry once science was applied to production and large-scale industry made its appearance. But one could say that there has been a second industrial revolution. The first was defined by the scientific use of inert matter and of natural forces. The second was defined by the scientific use of living matter, that is, of human beings [*des hommes*].

Rationalisation appears as a perfection of production. If one considers rationalisation from the point of view of production alone, it can be filed amongst the successive innovations of which industrial progress is made; whereas, if we take up the perspective of the worker, the study of rationalisation is part of a very great problem, the problem of an acceptable regime in industrial enterprises. Of course, I mean: acceptable for the workers; and it is above all from this angle that we ought to envisage rationalisation. For if the spirit of trade unionism [*syndicalisme*] differs from the spirit which animates the best leaders of our society, it is above all because the union [*syndical*] movement is more interested in the producer than in the product – contrary to bourgeois society, which is above all interested in production, not in the producer.

The question of the most desirable regime within industrial enterprises is one of the most important – perhaps even the most important – for the workers’ movement. It is thus all the more surprising that the question has never been posed. To my knowledge, it has not been studied by

¹ “His own manner”: For Weil, who was writing in 20th century France, the masculine still played the linguistic role of the “universal neuter”. I will nonetheless translate *les hommes* as “human beings” when it is clear that Weil is referring to all persons. (This and all subsequent footnotes are from the translator.)

² I will translate *travail* as work or as labour, according to context.

the theorists of the socialist movement; neither Marx nor his disciples dedicated any works to it, and in Proudhon one finds only hints of it. The theorists were perhaps not well placed to deal with this subject, lacking the experience of being themselves a cog in the factory.

Neither did the workers' movement itself – whether in the case of trade unionism or of the worker organisations which preceded the unions – think of extensively treating the different aspects of this problem. A number of reasons could explain this, especially the immediate, urgent, daily preoccupations which impose themselves upon workers, often too urgently to leave for them the leisure for reflecting on grand problems. Moreover, worker-activists who remain subject to industrial discipline scarcely have the possibility nor the desire for theoretically analysing the constraints that they suffer each day – what they need is to escape. And those who hold permanent posts often have the tendency to forget, during their daily activity, that there exists here an urgent and painful question.

What is more – this must be said – we all undergo a certain deformation which comes from the fact that we live in the atmosphere of bourgeois society, and even our aspirations for a better society feel the effects of this. Bourgeois society is afflicted with a monomania—the monomania of bookkeeping. As far as it is concerned, nothing has a value but that which can be counted in francs and cents. It never hesitates to sacrifice human lives to numbers which make a good impression on paper, national budget figures or industrial balance sheets. We all suffer to some extent the contagion of this obsession, we also allow ourselves to be hypnotised by the numbers. This is why, in the criticisms which we address to the economic regime, the idea of exploitation, of money extorted in order to fatten profits, is pretty well the only one that we express clearly. This is a deformation of the spirit which is all the more understandable because numbers are something clear, which one comprehends right away, whereas things that cannot be transformed into numbers require a greater effort of attention. It is easier to make demands with regards to a number marked on a pay stub than to analyse the suffering that one undergoes in a day of work. This is why the question of wages often leads us to forget other vital demands. And it even happens that we think about a regime transformation defined by the suppression of capitalist property and capitalist profit as though this were equivalent to the establishment of socialism.

Now, this is an extremely serious shortcoming for the workers' movement, for there is something more at stake than the question of profits and property in all the suffering inflicted on the working class by capitalism.

The worker does not suffer only from the insufficiency of his pay. He suffers because he is relegated by the current society to an inferior rank, because he is reduced to a kind of servitude. The insufficiency of wages is merely a consequence of this servitude. The working class suffers from being subjected to the arbitrary will of the ruling executives of society, who impose on him, outside of the factory, his level of existence and, inside the factory, his working conditions. The pains suffered in the factory from the bosses' capriciousness weigh as much on the life of a worker as do the privations suffered outside of the factory because of the insufficiency of his wages.

The rights that workers might conquer for themselves at their place of work do not depend directly on property or on profit, but on the relations between the worker and the machine, between the worker and the bosses, and on the greater or lesser power of the directors. The workers could oblige the directors of a factory to recognise that they have certain rights, without depriving the owners of the factory either of their title of owner nor of their profits; and, reciprocally, they could be entirely deprived of rights in a factory that is a collective property. The aspirations of workers to have rights in the factory lead them to collide not so much with the owner as with the director.

This is sometimes the same man – but this is not important.

There are therefore two questions to be distinguished: the exploitation of the working class as defined by capitalist profit, and the oppression of the working class at the place of work in the form of suffering which is prolonged, depending on the case, for forty-eight or forty hours per week, but which can be prolonged even beyond the factory to all twenty-four hours of the day.

The question of the regime of a business, considered from the point of view of the workers, is suggested by data connected with the very structure of big industry. A factory is essentially built to produce. Human beings are there in order to help the machines pump out every day the greatest possible number of well-made, cheap products. But on the other hand, human beings are human beings – they have needs and aspirations to be satisfied, and these do not necessarily coincide with the necessities of production, and in most cases actually do not coincide with them at all. This is a contradiction which the change of regime would not eliminate. But we must not accept that the life of human beings should be sacrificed for the fabrication of products.

If tomorrow we chase away the bosses, if we collectivise the factories, this will in no way change the fundamental problem that what is necessary for pumping out the greatest number of products is not necessarily what will satisfy the human beings who work in the factory.

Reconciling the needs of production and the aspirations of human beings who produce is a problem that capitalists resolve easily by deleting one of its terms – they act as though these human beings did not exist. Conversely, certain anarchist conceptions delete the other term, the necessities of production. But since we can forget them on paper but not eliminate them in reality, this is not a solution. The ideal solution would be an organisation of work such that the greatest number of well-made products and of happy workers leave the factory each evening. If, by some providential chance, we could find such a method of work, perfect enough to make work joyous, the question would not even present itself. But this method does not exist, and it is even the very contrary that occurs in reality. And if such a solution is not practically feasible, it is precisely because the needs of production and the needs of the producers do not necessarily coincide. It would be all too beautiful if the most productive working procedures were at the same time the most pleasant. But we can at the very least approach such a solution by searching for methods which reconcile as much as possible the interests of the business and the rights of the workers. We can suggest that it is possible in principle to resolve their contradiction via a compromise, by finding a middle term such that neither the one nor the other is entirely sacrificed – neither the interests of production nor the interests of the producers. A factory must be organised in such a way that the primary matter that it employs comes out the other side as products that are neither too few, nor too costly, nor defective; and that at the same time the human beings who enter into the factory in the morning do not leave morally or physically beaten down in the evening, not after a day, a year, or twenty years.

This is the true problem, the most serious problem confronting the working class – to find a method for the organisation of work which is acceptable for production, labour, *and* consumption.

We have not even begun to resolve this problem, since it has not even been articulated. So if tomorrow we took control of the factories, we would not know what to do with them, and we would be forced to organise them as they currently are, after a more or less drawn-out period of hesitation.

I myself do not have a solution to present to you. This is not something that we can improvise and invent from out of nothing. Only in the factories can we manage, little by little, to imagine a

system of this type and to put it to the test, just as the bosses, the business owners, and the technicians managed little by little to come up with and implement the current system. To understand the terms of the problem, one needs to have studied the system which currently exists, one must have analysed it, to have done the critique of it, to have gauged to what extent it is good and bad, and why. One must set out from the currently existing regime in order to conceive of a better one.

I will therefore try to analyse this regime (which you know better than anybody), by referring to its history, to the works of those who contributed to its elaboration, and to the daily life in the factories in the period which preceded the movement of June [1936].³

To characterise the current industrial regime and the changes that have been introduced into the organisation of labour, one tends to speak of rationalisation or Taylorisation more or less interchangeably. The word “rationalisation” enjoys the greater prestige amongst the general public because it seems to indicate that the current organisation of labour is the one that satisfies all the needs of reason, since a rational organisation of labour must necessarily (so one thinks) address the interests of the worker, the boss, and the consumer. It really seems that no one could protest against this. The power of words is great, and this one has been used a great deal. Likewise for the expression “scientific organisation of work”, since the word “scientific” has even more prestige than the word “rational”.

When we speak of Taylorisation, we indicate the origin of the system, since it is Taylor who discovered its essential elements, who gave it its impetus, and who marked the orientation of this method of work. So to come to know the spirit of this system, we must necessarily turn to Taylor. Which is easy to do, since he himself wrote a certain number of works on the subject in writing his own biography.

The history of Taylor’s research is very strange and very informative. It allows us to see how this system was oriented at its inception. It even allows us, better than anything else, to understand what rationalisation itself is at its core.

Although Taylor baptised his system the “scientific organisation of work,” he was not a scientist [*savant*]. His level of education was that of a high school graduate, although even this is not certain. He did not study as an engineer. Nor was he a worker, properly speaking, although he did work in a factory. How, then, should we define him? He was a foreman, but not one of those who have come from among the working class and who do not forget it. He was a foreman of the kind that is found currently in the professional unions of the supervisor class, and who believe that they were born to be the guard dogs of the bosses. It is neither out of curiosity of the mind nor out of a logical need that he undertook his research. It is his experience of being a guard-dog foreman which oriented him in all of his studies and which served as his inspiration during thirty-five years of patient research. It is thus that he gave to the industry – on top of his fundamental idea for a new organisation of factories – an admirable study on roughing lathes.⁴

Taylor was born into a relatively rich family and could have lived without working, if it weren’t for his and his family’s puritan values, which did not permit him to remain idle. He studied in a

³ Weil is referring to a wave of strikes and factory occupations that swept France after the election of the leftist coalition, the Front Populaire, in the legislative elections of May 1936. Note that Weil is speaking in February 1937; the Front Populaire was still in power, and these strikes were a very recent memory.

⁴ Weil is likely referring to Taylor’s “Notes on Belting,” which is easily accessible online. It is a highly technical treatise presented to the American Society of Mechanical Engineers in 1893 in New York.

secondary school, but an illness of the eyes made him quit his studies when he was 18 years old. A singular fantasy pushed him to enter a factory, where he undertook an apprenticeship as a mechanic labourer [*ouvrier mécanicien*]. But the daily contact with the working class did not give him the spirit of a worker in the least. To the contrary, he seems to have become far more acutely aware of the class opposition which existed between his working companions and himself, a young bourgeois, who did not work to live, who did not live from his wages, and who was known to the bosses and treated accordingly.

After his apprenticeship, at the age of 22, he was hired as a lathe operator in a small mechanical factory [*usine de mécanique*], and from the first days onwards he was in conflict with his workshop comrades, who made it clear to him that they would smash his face in if he did not conform to the general working cadence – for at this time, the reigning system of piece-work was organised in such a manner that, as soon as the cadence increased, the piece-rate was decreased.⁵ The workers had understood that they must not increase the cadence so that the piece-rate was not decreased. Thus each time that a new worker entered the factory, he was warned that if he didn't slow down his cadence, his life would be made unliveable.

At the end of two months, Taylor managed to become foreman. In telling this story, he explains that the boss trusted him because he belonged to a bourgeois family. He does not say how the boss was able to distinguish him so quickly, since his comrades prevented him from working more quickly than them, and one might wonder if he did not gain his trust by telling him what the workers said when they were alone.

When he became foreman, the workers told him: “We are happy to have you as foreman, since you know us, and you know that if you try to diminish the piece-rate we will make your life impossible.” To which Taylor essentially responded: “I'm on the other side of the barricade now, I'm going to do what I've got to do.” And in fact, this young foreman demonstrated an exceptional aptitude for increasing the cadence and firing the most intractable employees.

This special aptitude helped him climb in rank to the point of becoming the director of a factory. He was 24 years old at that time.

Once he became director, he continued to be obsessed by this unique preoccupation for constantly increasing the cadence of the workers. Obviously, these latter defended themselves, and as a result his conflicts with the workers only got worse. He could not exploit the workers as he wanted to, because they knew better than him the best methods of working. He perceived then that he was being blocked by two obstacles: on the one hand he did not know the minimally necessary time for carrying out each operation in the factory, and which procedures were likely to give the best times; on the other hand, the organisation of the factory did not give him the means by which to effectively combat the passive resistance of the workers. Thus he asked the business administration to set up a small laboratory in order to undertake some experiments on machining methods. This was the origin of a mission [*un travail*] that lasted twenty-six years and which led Taylor to discover high-speed steel, the dousing of tools, new forms of roughing lathes – and above all to discover, with the help of a team of engineers, some mathematical formulae that revealed the most economical relations between the depth of the pass, the advance, and the speed

⁵ While the terms *cadence* and *rythme* – which I have simply rendered with their English analogs, cadence and rhythm – are in some contexts synonymous, Weil tends to use *cadence* to refer to a pace of labour imposed from the outside and to which a worker must conform, whereas *rythme* tends to refer to a pacing dictated by the nature of an activity and based on the judgement and know-how of the workers themselves. *Rythme* also suggests an ordered and beautiful whole; it is what defines the performance of a first-class runner who seems to be gliding gracefully to the finish line even when sprinting at top speed. On this point, see page 337 of *La Condition Ouvrière* edited by Robert Chenavier and published by Gallimard.

of turning. And for the application of these formulae in the workshops, he established rules of calculation allowing him to find these relations in every particular case which could arise.

These discoveries were the most important in his eyes because they had immediate repercussions for the organisation of factories. They were all inspired by his desire to augment the cadence of the workers and by his ill will towards their resistance. His great preoccupation was to avoid any loss of time in the labour process. This shows right away what the spirit of the system was. And for twenty-six years he worked on this single obsession. He conceived of and progressively organised the Office of Methods with the production files; the Office of Time to establish the time that was necessary for each operation, the division of labour between the technical managers, and a particular system of piece-work with bonuses.

This overview allows us to understand the character of Taylor's originality and to understand what the foundations of rationalisation are. Before him, no one really undertook laboratory research except to discover new mechanical apparatuses [*dispositifs*], to come up with new machines, whereas he had the idea of scientifically studying the best procedures for using existing machines. Strictly speaking, he did not make any discoveries, except for high-speed steel. He simply searched for the most scientific procedures for using the machines that already existed as well as possible – and not only the machines, but also the human beings. This was his obsession. He created his laboratory so that he could say to the workers: “You are wrong to take an hour to do such and such a task, you should have done it in a half hour.” His goal was to take away from workers the possibility of determining for themselves the procedures and the rhythm of their labour, and to place the choice of movements to be executed during production into the hands of the directors. This was the spirit of his research. For Taylor it was not a matter of submitting the methods of production to the test of reason, or at least this was only a secondary concern; his primordial concern was to find the means of forcing the workers to give to the factory the maximum of their labour capacity. The laboratory was for him a means of research, but above all it was a means of coercion.

This explicitly follows from Taylor's own works. His method is essentially as follows: First, one studies scientifically the best procedures to employ for any given sort of work, even the work of labourers (I do not mean specialised labourers, but of labourers in the proper sense of the term), even material handling or other work of this kind. Then, one studies timing in the disaggregation of each task into elementary movements which repeat themselves in very different kinds of tasks, according to different combinations. And once one has measured the time necessary for each elementary movement, one easily obtains the necessary times for quite diverse operations. (As you know, the method for the measurement of time is by use of a stopwatch – there is no need to belabour this point.) Finally, there is the division of labour between the technical managers. Before Taylor, one foreman did everything, he took care of everything. Now, in the factories, there are several bosses for each workshop: there is the inspector, the foreman, etc.

The particular system of piece work with bonuses consisted in measuring time per unit as based on the maximum amount of work that the best worker could produce during an hour, for example. For all those who produced this maximum, each piece was paid at such and such a rate, whereas it was paid at a lower rate for those who produced less; those who produced a good deal less than this maximum earned less than the living wage. In other words, this is a procedure for eliminating all those who are not first-class workers able to achieve this maximum of production.

All in all, this system contains the core of what we today call rationalisation. The Egyptian foremen had whips to push workers to produce; Taylor replaced the whip by offices and laboratories, under the cover of science.

Taylor's idea was that each person is able to produce a certain maximum quantity of work. But this is entirely arbitrary, and is inapplicable for a great many factories. In a single factory, it has as a result that the strong [*costands*] workers, the most resilient, stay in the factory, whereas the others go on their way; it is impossible to have enough strong workers for all of the machines of an entire city and to arrive at such a selection on a grand scale. Imagine that there is a certain percentage of work necessitating a great physical force – nothing promises that there will be the same percentage of men who fulfil this condition.

Taylor's research started in 1880. Mechanics was at that point just beginning to become an industry. During the whole first half of the 19th century, big industry was basically limited to textiles. It is only towards 1850 that one began to construct lathes with metallic frames. When Taylor was a child, most mechanics were still artisans working in their own workshops. It is at the very moment when Taylor began his works that the American Federation of Labour was born, built of several unions that had just established themselves, and notably the Metallurgists' Union. One of the methods of union action consisted, in this period, in limiting production in order to prevent layoffs and the reduction of the piece-rate. In Taylor's mind, as in the mind of the industrialists with whom he progressively shared the results of his studies, the first advantage of the new organisation of labour was to break the influence of the unions. From its origin, rationalisation has essentially been a method for making workers work more, rather than a method for working better.

After Taylor, there have not been a lot of sensational innovations in the direction of rationalisation.

In the first place there was the assembly line, invented by Ford, which eliminated to a certain extent piece-work with bonuses, even in his factories. The assembly line, originally, is simply a procedure of mechanical handling. Practically, it has become a method for extracting from workers the maximum amount of labour in a given timespan.

The assembly-line system has made it possible to replace skilled workers by labourers specialised in a serialised labour where, instead of accomplishing some skilled piece of work, one must only execute a certain number of mechanical gestures that are constantly repeated. This is a fine-tuning of Taylor's system that ends up taking from the worker the choice of method and the intelligence of his labour, which is sent back to the Office of Studies. This assembly system also makes the manual skill necessary for the skilled worker disappear.

The spirit of such a system appears sufficiently in the manner in which it has been elaborated, and one can see right away that the word "rationalisation" has been wrongly applied to it.

Taylor was not looking for a method for rationalising labour, but a means of control over workers; and even if he found at the same time a means of simplifying labour, these are two completely different things. To show the difference between rational labour and the means of control, I will take an example of real rationalisation, that is, of technical progress that does not weigh on the workers and does not constitute a greater exploitation of their labour force.

Consider a turner working on automatic lathes. He has four to watch over. If one day we discover a high-speed steel that makes it possible to double the production of these four lathes, and if we were to hire another turner such that each of them has only two lathes, then each one of them has the same task and nonetheless the production is cheaper.

It is possible, then, to have technical improvements that improve production without weighing on the workers in the least.

But Ford's rationalisation is not about working better, it is about making workers work more. In other words: the class of bosses made the discovery that there exists a better way to exploit the labour force than to lengthen the work day.

Indeed, there is a limit to the work day – not only because the day in the strict sense of the term has only twenty-four hours, from which one must also subtract the time to eat and to sleep, but also because, after a certain number of hours, production no longer progresses. For example, a worker does not produce more in seventeen hours than in fifteen hours, because his organism is more exhausted and, automatically, he goes less quickly.

There is therefore a limit to production that one reaches rather easily when increasing the length of the working day, whereas one does not reach it by increasing its intensity.

This was a sensational discovery on the part of the bosses. Perhaps the workers do not yet entirely understand this, perhaps the bosses are not entirely aware of it – but they act as though they understood it very well.

This is something that does not immediately occur to us, because the intensity of work is not measurable in the way that its duration is.

In the month of June [1936], the peasants thought that the workers were lazy because they wanted to work only forty hours per week; this is because we are in the habit of measuring work by the quantity of hours, and this can be counted, whereas the rest cannot.

But the intensity of labour can vary. Take, for example, a running race and recall the runner at Marathon who fell dead upon arrival at his destination because he ran too quickly. We can consider this as an intensity-limit of effort. The same goes for labour. Death, clearly, is the extreme limit not to be reached, but as long as one is not dead at the end of an hour of labour, it means, as far as the boss is concerned, that he could have worked more. In this way, likewise, we break records every day without it occurring to anyone that the limit has yet been attained. We always await the runner who will break the last record. But if we were to invent a method of labour that killed off workers at the end of five years, for example, the bosses would very quickly be wanting for a labour force and this would run against their self-interest. They would not notice right away, because there is no scientific way of measuring the grinding-down of the human organism by labour; but perhaps they would notice in the next generation, and would revise their methods, exactly as we came to notice the thousands of premature deaths provoked by child labour in the factories.

The same thing can happen to adults with the intensity of labour. Just one year ago, in the mechanical factories in the region of Paris, a forty-year-old man could no longer find work, because he was considered to be already used up, emptied, and unfit for production at the current cadence.

There is, then, no limit to the increase of the intensity of production. Taylor recounts with pride that he managed to double and even to triple production in certain factories simply with the bonus system, the surveillance of workers, and the merciless firing of those who were unwilling or unable to keep up with the cadence. He explains that he managed to find the ideal means of eliminating the class struggle, because his system rests on an interest common to the worker and the boss, since both earn more with this system, and since the consumer himself ends up feeling satisfied because the products are cheaper. He bragged of having resolved all social conflicts and of having created social harmony.

But let's look at the example of a factory whose production Taylor doubled without changing the methods of fabrication, simply by organising this workshop police [*police des ateliers*]. And let's imagine a factory where one would work for seven hours a day for thirty franks, and where the boss decided, one fine day, to make workers labour for fourteen hours a day for forty franks. The workers would not think that they gain from this, and would certainly go on strike right away. Yet this is exactly what Taylor's system does. By working for fourteen hours instead of seven, one would exhaust oneself twice as much. And I am convinced that, beyond a certain limit, it is far more harmful for the human organism to augment the cadence – as Taylor did – than to augment the duration of labour.

When Taylor instituted his system, there were certain reactions on the part of the workers. In France, the unions reacted sharply when the system was first being introduced in the French factories. There were articles by Pouget, by Merrheim, comparing rationalisation to a new form of slavery. In America, there were strikes. In the end this system triumphed all the same, and played an important role in the development of the war industries—which makes us think that war played an important role in this triumph of rationalisation.

Taylor's great argument is that this system serves the public interest, that is, the interest of the consumers. Obviously, the augmentation of production can be favourable to them when it is a matter of foodstuffs, of bread, milk, meat, butter, wine, oil, etc. But it is not this production that increases with Taylor's system; generally speaking, it does not serve to satisfy the principle needs of existence. What has been rationalised are the mechanical, the rubber, the textile industries, that is, essentially those which produce the fewest consumable objects. Rationalisation has above all served the fabrication of luxury objects as well as that doubly luxury industry which is the war industry, an industry that not only does not build, but destroys. It has served considerably to increase the importance of useless workers, of those who create useless things or of those who do not create anything and are employed in public relations and other businesses of this kind, more or less parasitic. It has considerably increased the importance of the industries of war, which, by themselves, surpass all others in their magnitude and the harm they cause. Taylorisation has essentially served to increase this importance and, all in all, to make the increase of general production weigh down upon an ever decreasing number of workers.

From the point of view of the moral effect on the workers, Taylorisation has doubtless provoked a deskilling of the workers.⁶ This has been contested by the apologists of rationalisation, notably by Dubreuil in *Standards*. But Taylor was the first one to brag about this, managing to run production with only 75 per cent skilled workers and with 25 per cent unskilled workers in the finishing stage. In Ford's factories, only 1 per cent of workers require a learning period of more than one day.

This system has also reduced the workers to the state of molecules, so to speak, by making of them a kind of atomic structure in the factories. It has brought about the isolation of the workers. It is one of Taylor's essential formulae that one must address the worker individually, that one must consider the individual in him. What he means is: worker solidarity must be destroyed with bonuses and competition. This is what produces that solitude which is perhaps the most striking character of the factories organised according to the present system, a moral solitude that has certainly been diminished by the events of June [1936]. Ford said ingeniously that it is excellent to have workers who get along well with each other, but that they had better not get along too well, because this diminishes the spirit of competition and of emulation which is indispensable for production.

The division of the working class is therefore fundamental to this method. The development of the competition between the workers is an integral part of it; as is the appeal to the lowest kinds of feelings. Wages are the only incentive [*mobile*]. When wages are not sufficient, brutal firing is the incentive. At every moment of work, wages are determined by a bonus. At any given moment, the worker needs to make a calculation to know what he has earned. What I am saying is all the more true when it is a question of unskilled labour.

This system has produced the monotony of labour. Debreuil and Ford say that monotonous labour is not painful for the working class. Ford actually says that he could not spend a full day on

⁶ As this sentence makes clear, Weil uses the term "moral" in its broader sense – not simply in the sense of "good or evil", but as anything that pertains to the mental, emotional, psychological, spiritual, ethical, etc. aspects of human life.

a single type of labour in the factory, but that his workers must simply be built differently than him, because they refuse a more varied sort of work. If he says so! If it really happens that because of such a system monotony should become bearable for the workers, then this is perhaps the worst thing that one can say about such a system; for it is certain that the monotony of labour always begins by being a kind of suffering. If one manages to get used to it, it is at the price of a moral diminution.

Actually, one does not get used to it, unless one can work while thinking about other things. But in this case it is necessary to work at a rhythm that does not demand too much diligence in the attention required for keeping one's mind on the cadence of the work at hand. But if one does a kind of labour about which one must think the entire time, then one cannot think of other things, and it is false to say that the worker can adapt to the monotony of this labour. Ford's workers were not permitted to speak. They did not seek more varied work because, after a certain amount of time doing monotonous labour, they are incapable of doing anything else.

Discipline in the factories, constraint, is another characteristic of the system. It is even its essential characteristic; and it is the reason for which it was invented, since Taylor conducted his research exclusively in order to break the resistance of the workers. By imposing on them certain movements counted in seconds, or certain others counted in minutes, it is obvious that there remains for the worker no power to resist. This is what Taylor was most proud of, and what he took the greatest pleasure in developing, adding that his system made it possible to break the power of the unions in the factories.

In the course of a study undertaken in America on Taylor's system, a worker questioned by Henri de Man told him: "The bosses don't understand that we don't want to be timed; and yet, what would our bosses say if we asked them to show us their accounting books and if we said to them: On this quantity of profits that you make, we judge appropriate that such and such an amount should stay with you, and such and such an amount should come back our way as wages? The knowledge of labour time is for us exactly the equivalent of what is for them the industrial and commercial secret."

This worker had understood the situation admirably. The boss not only owns the factory and the machines, not only has the monopoly over the procedures of production and over financial and commercial knowledge about the factory, but he also claims a monopoly on labour and the timing of labour. What is left for the workers? They are left with the energy that allows them to make a movement, the equivalent of electric force – and this energy is used exactly as electricity is used.

By the roughest means, by employing both the carrot and the stick of earnings as a stimulus, in a word, by a method of training [*dressage*] which calls upon nothing that is properly human, the worker is trained just like a dog is trained: by combining whip and sugar cubes.⁷ Luckily, we don't entirely arrive at this point, because rationalisation is never perfect, and because – thank god – the workshop boss never knows everything. There are still ways of getting by, even for an unskilled worker. But if the system were strictly applied, this is precisely how it would be.

There are yet more advantages for the directors and drawbacks for the workers. While the directorate has the monopoly on all knowledge concerning labour, it has no responsibility for the hardships caused by piece work and bonus work. Before June [1936], we had arrived at a miraculous state of affairs where all that was good was made to benefit the bosses, but any mishap was put on the workers' account, who lost their wages if a machine was out of order, who needed to figure

⁷ Both *dressage* and *entraînement* can mean "training", but unlike English, French has a word to refer to the kind of training used specifically for animals. This term – *dressage* – is the one Weil uses in this paragraph.

out a way of getting by if something wasn't working, if an order was not applicable or if two orders were contradictory (because, in theory, everything is always just fine: the steel of the tools is always good, and if the tool breaks, it is always the worker's fault), etc. And because work is always piece work, the bosses are always doing a favour when they are willing to help to rectify certain setbacks. Such that, in truth, this system is ideal for the bosses, since it brings them every advantage, while it reduces workers to the state of slaves and yet imputes to them the capacity for responsibility every time something doesn't work out. It is a sophisticated system from which suffering results in either case, since in either case it is the worker who is in the wrong.

We can call such a system scientific only if we start out from the premise that human beings are not human beings, and by making science play the belittled role of an instrument of constraint. But the true role of science in the organisation of labour is to find the best techniques. As a general rule, the fact that it is so easy to exploit the labour force ever further creates a kind of laziness in the bosses, and in many factories we have seen an incredible negligence on their part vis-à-vis technical problems and organisational problems, because they know that they can always have the workers fix their own errors by increasing the cadence a bit more.

Taylor has always maintained that the system is admirable because it enables us scientifically to find not only the best labour procedures and the time necessary for each operation, but also the limit of exhaustion beyond which one must not make the worker go.

Since Taylor, a special branch of science has developed in this direction: it is what we call psychotechnics [*psychotechnique*], which makes it possible to define the best psychological conditions for such and such a type of work, to measure exhaustion, etc.

Thus the industrialists can, thanks to psychotechnics, say that they have the proof that they are not making their workers suffer. All they have to do is invoke the authority of the scientists [*savants*].

But psychotechnics is still imperfect. It was only recently created. And even if it were perfect, it would never get to the moral factors – for suffering in the factory consists above all in finding that time passes slowly, although the suffering never ends there. And never, by the way, will any psychotechnician accurately manage to determine to what extent a worker finds time slow. It is the worker himself who can tell us.

What is worse still is that we cannot trust the scientists, because most often they are not sincere. Nothing is easier for an industrialist than to purchase a scientist, and when the boss is the state, nothing is easier for it than to impose one scientific rule or another. We are seeing this right now in Germany where, all of a sudden, they have discovered that fats are not all that necessary for human nourishment. One might likewise discover that it is easier for a worker to make two thousand pieces than one thousand. Workers must therefore not trust scientists, intellectuals, or technicians to fix what is of vital importance for them. They can, to be sure, take their advice, but they must only rely on themselves—and if they make use of science, it must be by assimilating it themselves.⁸

⁸ It is not entirely clear how Weil ended her presentation. The text collected and published in the 1951 edition of *La Condition Ouvrière* ends here. In a subsequent edition, as in the version included in *Oeuvres Complètes*, the following sentences were added to the end of the text: “In finishing this analysis, the question that naturally arises is the one of what is to be done. I do know that the month of June [1936] improved things somewhat, and to a different extent depending on the factory. The moral atmosphere has indeed changed. But this is only because the bosses were scared. They retreated before the extraordinary dynamism of the working class.”