

Machine Slavery or Technology? Communist Remarks on Rationalization

— Jan Appel¹

I.

All social progress is expressed in the fact that power and material are increasingly put at the service of production. Without coal and iron, steam engines and electricity, the triumphant advance of the capitalist mode of production is unthinkable. Therefore, the mission of capitalism loses its *raison d'être* from the moment when the exploiting class, as commander and owner of the tamed productive forces, is no longer able to advance along this path. It is therefore also of the greatest interest to the working class which paths capital must take in the questions of the higher development of the productive apparatus.

First of all, it should be recalled that the capitalist owner of the means of production is only open to the increased use of natural forces and materials in production to the extent that they bring him more profit. The profit point of view is decisive for the capitalist's actions. A society in which the producers, i.e. the workers themselves, have the means of production at their disposal, will already make natural forces serviceable if they only relieve the worker of a burden. Today it can no longer be denied that the profit standpoint on a world scale compels the increasing elimination of the forces of nature that have already been rendered serviceable. A brief insight into the conditions of the capitalist mode of production teaches us this.

The cycle of metabolism in capitalist society takes place according to certain laws revealed by Marx. Among these, we consider the precisely prescribed regulation of society's consumption, which is divided into three groups. These are the means of production entering again into production, the value of the labor-power consumed — i.e. the labor-time necessary for its restoration — and the consumption of the capitalist class and its appendages. But the capitalist class strives precisely to create a surplus of products in the surplus value. This surplus

¹ Originally published under the pseudonym "Max Hempel".

value, in turn, only acquires value for its owner if it is also used for social consumption, i.e. sold, converted into money. As long as advancing capitalism still found room on the face of the earth, the surplus served to subordinate itself to new workers, to draw more power and material into the social metabolism, to expand the capitalist mode of production, which was boosted by steam and electricity. Now that the world has been opened up to capitalism, surplus value itself must necessarily appear on the market. However, the mass of manufactured products embodying this surplus value cannot be used there if surplus value can no longer enter the social metabolism in any other way. Capitalism represents a unity only as a system; as an active force it disintegrates into innumerable individual capitals that alternately fight each other. Even today, each of these individual capitals is still trying to sell its own surplus, despite the impossibility of transferring the surplus value of capitalism as a whole to consumption. Other capitals must therefore disappear from the scene with the labor force and means of production they command. The surplus value produced by profit-hungry capital now forces the constant elimination of already included labor, power and material from the social bloodstream. Capitalism has become regressive, has become destructive to society, that is clear from this brief overview.

II.

But social decline is not a mechanical decline. Technology, both in terms of working methods and better organization as well as the progressive mastery of natural forces, is still on the march even under these circumstances. If new discoveries and inventions have hitherto served as an increased stimulus for the subjugation of new social production circles, they continue to work in the service of capital to increase the production of surplus value and are still being used by the opposing capital groups to crush their opponents. Thus technology, as the development and perfection of the social mode of production, becomes a means of destruction in the hands of capital. Proof of this is provided by the so-called "rationalization" currently being pursued with the most modern industrial science and technology. The strongest capital carries out organizational and technical measures in individual companies and entire branches of industry solely to increase added value, which must bring the uncompetitive opponent to a standstill. But not only is production shut down, but at the same time the proportion of the total product accounted for by the labor force that was employed dwindles and the demand that the winning capitals still had to cover has shrunk further. To the same extent that the cheaper commodity prices made

possible by rationalization help to realize the surplus value of the winning capital group, they also prevent that part of the social metabolism which the surplus value has taken up. Surplus value is the dead weight that is driven into the pores of the economy with the most modern means of technology and causes social death there.

On this occasion, a special phenomenon in the context of rationalization must be pointed out. In addition to the rationalization of the production process, the unification of capital, especially in the so-called key industries, creates a monopoly position that allows the prices of products to be kept artificially high. This capital makes an extra profit at the expense of the rest of production, passing on the damage caused by the deliberate shutdown within the monopoly to the rest of capital. Monopoly capital frees itself, at least for the time being, from the capital-destroying effect of rationalization and at the same time provides the clearest proof that the capitalist production cycle is an inward spiral.

It is the same picture when we dwell on new epoch-making inventions in the field of technology. The economy is increasingly using liquid fuels instead of coal because capital expects greater profits from them. Now German researchers in this field (Bergius-Fischer) have succeeded in converting coal into liquid fuel, i.e. oil, at half the production cost of the oil that has been extracted since then. This invention was immediately patented by the German Chemical Trust (i.e. color industry), which, together with the Standard Oil Company, the world's dominant oil trust, set about implementing the new process. From the outset, therefore, this invention was intended to bring extra profits to the monopoly capital at its disposal, but also to lead to the systematic exploitation of existing oil production. Other successful experiments in the field of heat technology, such as the successful experiments by French researchers Claude and Boucherot, which made it possible to harness ocean heat in the equatorial region, promised no immediate profit and were therefore ignored.

Rationalization in the narrower sense, which applies "Taylorism" as a scientifically developed method and, in connection with this, "the conveyor belt", i.e. the mechanical interlocking of individual work actions on the entire workpiece, reflects the process of shrinking that we have observed in capitalism as a whole in a concentrated form. Its stated purpose is, as von Siemens said: "To achieve the same performance with fewer people." An article in the "Hamburger Fremdenblatt" hints at the consequences even more sharply:

“The flowing conveyor belt forces us to keep to a pace of work that has been calculated and tested as appropriate and, above all, requires a mental and technical breakdown of the processes involved in the division of labor. Breaking down the work process into simple, small operations gives engineers numerous ideas for replacing these manual operations with auxiliary machines and brings production ever closer to the ideal of a workerless factory.”

Because, as we know, surplus value is only generated through the additional work of human labor, the move towards the workerless factory destroys the economic foundations of profit in the most radical way. Of course, this does not exclude the possibility that the most powerful capitals will nevertheless follow this path because it gives them the upper hand in the competitive struggle. The development of the social production process under capitalist command is subject to the constraint that all progress must further widen the gap between private appropriation and social production. Like a self-acting machine colossus, capital throws the workforce out of the production process and poses the relentless question to the superfluous masses of workers as to whether they want to starve or conquer the factory.

III.

If we have thus followed the development of capitalist economy to its end point, the living effect of rationalization presses forward. It is already consigning millions of unemployed proletarians to starvation; it is beyond its reach when the time for this will be postponed somewhat by means of support provided by the part of the population that is still working. Thus rationalization takes on the character of an offensive against the standard of living of the proletariat. The position of the various workers' organizations in this regard shows whether and to what extent this question is understood by the proletariat itself. Social democracy and trade unions, as conscious collaborators in the capitalist order, are naturally enthusiastic supporters of rationalization.

Their new and yet so old grocer's theory, which advises the capitalist to raise wages in order to generate sales and which encourages the worker to earn these higher wages through increased labor intensity, cannot be taken seriously. As an illustration of this nonsense, a few lines from the organ of the German Metalworkers' Association:

“It is a truth made incontrovertible by Ford that high wages with short working hours ultimately benefit the business more than the workers themselves, because it is only thanks to better pay and shorter working hours that they are able to buy more and consume what they have bought. The latter is especially true for automobiles. Because if the workers have two consecutive days off every week instead of one, they can take longer trips in their cars. This means they can get away from the rattling, smoky environment of the factories for longer, which is good for their health. And they wear out the cars faster, which is good for sales, Ford's business.”²

Apart from these sub-zero flashes of inspiration, all that remains is the spasmodic effort to describe rationalization as a healthy effort by industry to overcome a normal crisis. Any polemic against this is superfluous, because it is precisely through rationalization that the uninterrupted disruption of production speaks a clear language. Class-conscious workers, however, must know that social democracy and trade unions are also demonstrating here that they are beyond the barricades.

The Muscovite social democrats, whose position is determined by the interests of the Russian state, which as a representative of capitalist construction stands on the ground of rationalization, are more cautious. Remembering their revolutionary past, they cannot openly take the side of capital and therefore demand the struggle against the inevitable effects of rationalization, while proclaiming Taylorism, assembly line work, etc. as progress. At the 7th ECCI meeting Kuusinen said: “But we cannot speak out against all measures of rationalization in capitalist enterprises, but only against those which actually worsen the situation of the workers. We are not opposed to such technical innovations that are not at the expense of the workers' standard of living.”³ This ignorance of capitalist reality, which was crowned by the call to fight for the extension of works council rights, this tactic of trying to sugar-coat growing unemployment with works council rights, was too much even for Bukharin, the most cunning advocate of the NEP course. He stated: “There can be no neutral rationalization, but either a capitalist or a socialist one. Every technical improvement is only possible in a certain social milieu. Machines as such do not exist on the moon.” But the sly fox knows another way out, to appear revolutionary and yet not harm capitalist construction: “Some deviations have emerged that want to judge the introduction of machines as progressive, at least in the colonies. This is incorrect. Capitalism is in no way progressive, because

² Metallarbeiterzeitung from October 26

³ Inprekorr No. 145, p. 2542

socialism already exists. Since the formula: Struggle against the consequences of rationalization can be misinterpreted as if there were two processes, first a technical and then a social one, I propose the following slogans: 1. Struggle against capitalist stabilization, 2. Against any deterioration in the condition of the workers, 3. For the elevation of the condition of the workers, 4. For socialist economic organization, 5. Not capitalist but socialist rationalization.”⁴

Bukharin insisted that the Russian state economy be canonized as socialism and only allowed rationalization in Russia to be considered progress. No wonder, since the other countries were his competitors. The demands he makes are only somewhat differently colored and, incidentally, miss the point, the question of power. But as long as the working class only seeks to defend itself against the excesses of the capitalist murder system, it will only become more firmly entangled in the pitfalls of the ruling order. Of course, the revolutionary proletariat must also take a clear position on the questions of technology and production methods. This will be dealt with in the next issue.

IV.

The view we have quoted from Kuusinen is typical of the attitude of social democracy of all shades. On the one hand, they declare that they want to combat the harmful consequences of rationalization for the working class, but on the other hand they welcome the increase in productivity as social progress. But of course it is nonsense to demand any results from rationalization under capitalist command other than increased exploitation of the workforce, growing armies of unemployed and the eventual shrinking of production. If you want the one, you must also want the other, because the cycle of capitalist production is not determined by good or bad people, but is subject to iron laws that are familiar to every Marxist. Increasing the productivity of labor in and of itself as a measure of social progress is a principle that all Marxists have in common. But actually functioning production knows no “in and of itself”. It is capitalist, and if it increases the productivity of labor (even only at its peaks, while the broad level of social production rots), it is only for the sake of profit and not for society. And the result of this ramping up, which today we call “rationalization”, is not progress “in and of itself”, but rather an increase in social misery and decay, a piling up of capitalism that impedes culture and progress. It is the accelerated march towards barbarism.

⁴ Inprekorr No. 146, p. 2572

Only in reverse is it true that this march towards barbarism is at the same time progress, namely when the broad masses of the outcasts are thereby forced to throw themselves against the iron ring of capital in order to defeat it. But do not forget that to call the capitalist increase in production progress is to keep the working masses from the storm (even if on the one hand it is on the other). Marx's formula (which we also subscribe to) that a society is viable as long as it is able to develop its productive forces has become a fetish of social democracy. Hypnotized, they stare at the unusual successes achieved in this direction in individual factories, at Ford and his imitators. They fail to see that it is precisely this upswing in individual peaks of capitalist production that is causing the rapid decline of broad production circles. Hypnosis fails to recognize that millions of people are being eliminated from production and are thus losing their right to live in this society. It corresponds to this idolatry when the party bureaucrats and trade union bosses display a contempt for the unemployed that clearly says: Die! You are no longer productive, you are just ballast for the "progress" of society!

The revolutionary proletariat despises these miserable wretches. It sees in the flourishing of the capitalist tops and their increased productivity nothing other than growing capitalist power and at the same time knows that this power itself must awaken its mortal enemy, the great proletariat, which will defeat it. Only then will the whole direction of social development be reversed. What until then has served to subjugate and ultimately destroy society must from now on help the whole of society to flourish. The more furiously the unleashed productive forces of the top capitalist groups whip up barbarism, the more successfully they will work to build the new communist society. But this means nothing other than that although the possibility of progress is contained in the progressive development of technology and the growing productivity of labor, it will only become a fact if the proletariat makes itself the master of it. First proletarian revolution and then advancement!

V.

Rationalization is not only the whip of hunger for the proletariat, but also the work process itself increasingly takes on the character of slavery. A worker at AEG describes her experiences on the assembly line in a very tangible way:

"You pick up the fuse pieces, for example, that are to be processed, from the assembly line and insert a piece of wire or some kind of shape using a small drilling or punching machine. But hurry, because the next fuses, the next

workpieces, are already coming. They are only a few centimeters away from you. And if you haven't finished your pieces yet and quickly put them back on the conveyor belt, the next pieces sail silently past you without you being able to grab them. To your neighbor, who can't do anything with them because you have to have finished your work on them before the next person can complete them. And if you falter, your neighbor must falter, and this continues until the end of the belt. This then ejects the unfinished raw pieces again. The master comes. He identifies the guilty person: they are already on the mining list. But your neighboring colleagues will also be upset if you fail. Because group piecework wages are paid. If an individual fails or works even a little slower, the daily output of the assembly line is reduced; the group and therefore the individual worker receives less pay. It is often all too easy for a fellow worker to accuse not the driving master, the ingenious system of 'flow production', of working too fast, but his own colleague. All the more so as every worker stands silently, silently, without any superfluous or even annoying movement during the entire working time, always attentively observing the 'conveyor belt' or his workpieces. And nobody can shout a friendly word of encouragement, whistle or sing as they work. There's no time or desire to do so; all you can hear are the machines, the grinding of the conveyor belt and the lifting and lowering of the workpieces, even though there are many hundreds of workers in the same workroom.”⁵

The conveyor belt with the machines connected to it — the workers being the transition points that could not yet be connected by iron arms and levers — eliminates all personal initiative and will for those working in the gear train. The worker only makes precisely prescribed movements, measured in terms of time and force. He becomes a machine himself. This is also consistent with the fact that the aim is to replace this living machine with mechanical machines and that this is also considered possible in principle. The limit for this in capitalism is where the machine becomes more expensive than the worker to be displaced. Here we see a contradiction that is constantly moving further apart in the development of the production process. The more the division of labour is carried out down to the smallest detail and the work process is mechanized, the activity of the worker at the machine sinks to a soulless action, while the intellectual work of managing the production process becomes more and more concentrated in the person of the factory manager. The character of the industrial domination of capital comes to the fore here in its most complete form; it is reified in the mechanism of the machinery. And yet this opposition brings about its own overcoming. The progressive mechanization of the labour action of the living machine slave leads directly to its replacement by the iron

⁵ Rationalisierung und Arbeiterklasse. Führerverlag, Berlin. 1926.

slave. The more “soulless” the worker's actions become, the more they degenerate into machine-like actions, the easier they can be taken over by the steel worker. From a purely technical point of view, this is the solution to the problem, where mankind frees itself from the physical burden of labor and transfers it to sufficiently tamed natural forces.

VI.

Rudolf Lämmel, a bourgeois researcher, carried out investigations in this direction and came to interesting conclusions. He writes: “In order to maintain all businesses, such as railroads, mines, etc., to supply all industries and trades with power, and finally to make the entire agricultural and domestic operation of people completely automatic, so that man becomes only the driver of countless working machines, we need about three permanently operating horsepower for every citizen of the world.” “For the whole of humanity, a power of 5.1 billion horsepower must be taken from nature so that the worker rises to become the leader.”⁶ He calls the power of 3 horsepower on the head a “cephaly”.⁷ His investigations then show that with the current state of technology, a cephalic power of 48 kilowatts or 6.53 HP is possible, while the existing cephalic power is 0.078 kilowatts or 0.106 HP. So there is still quite a long way to go to achieve the industrial paradise of mankind. There is no doubt that the development of the productive forces is moving in this direction, whatever the goal may be. The only question is how and under what social conditions mankind will travel this road. It is characteristic of the helplessness of bourgeois science that it does not even ask this question and, as the aforementioned researcher says: “Only when it is shown that the earth is so rich that it can provide every human being with a cephalic power of 3 HP. will the great human question of the just distribution of goods have a chance of a favorable solution.”

Here we have before us a blatant formulation of the course of development of mankind, which confronts the revolutionary proletariat in all social-democratic “scientists” of Marxism. The Moscow Social Democrats are no exception. On the one hand, it is the view that industry must be developed to such an extent that it can bless all members of society with goods before it is possible to loosen the reins of the industrial regime. On the other hand, it is said here that the enslaving influence of the machine on the worker is justified until, for example, the cephalic power of 3 HP is reached. This point of view is expressed in the fact that

⁶ Rudolf Lämmel: Sozialphysik, Francksche Verlagsbuchhandlung, Stuttgart.

⁷ The word comes from the Greek Cephalus = head.

the workers are preached obedience to the leader and discipline in the party and trade union as well as in the leader state of today's Russia. Obedience, subordination and discipline in the trade union and party, that is the school of labor discipline — today in capitalist production, tomorrow in trust socialism. This is consistent with the fact that the overcoming of those capitalist private interests that stand in the way of the development of productivity cannot be conceived of in any other way than through the unification of the fragmented private power of disposal in the commanding heights of the trust and the state. In reality, this is nothing more than a change of command, while nothing is changed in the essence of industrial organization. The way to socialism here is to adopt all the methods of increasing production, such as Taylorism, the Ford system, concentration and trust power, from capitalism, only to let them work with increased force, because the slogan is: "Increasing production is socialism!" The enslavement of the worker by the machinery must necessarily continue under such conditions and his liberation only beckons from the distant time when — as Lämmel says — he rises from worker to leader of the machine. As long as technology and the machine apparatus created by it function as a means of coercive power over the worker, it becomes the shackle that binds him into ever tighter bonds of slavery. Only when the workers take control of the production apparatus themselves and manage the economy themselves through their collective body, the factory organization, will they free themselves from machine slavery. It is not technology and the mass product created with its help by the proletarian in slave labor that liberates the worker, but the workers as a whole liberate themselves and subject the mechanical apparatus to their will. But then it is ridiculous to make the just distribution of the earth's goods dependent on the achievement of a predetermined cephalcy. The society of equal producers produces and fairly distributes what it needs and, precisely because it will and must have a surplus of forces, will draw a growing quantity of the earthly forces of nature into production.

It is not technology and the most developed productivity of labor that liberates the worker. Rather, the working class must take away the dominant character of technology and its apparatus in order to bring it to full bloom. The liberation of the working class, however, can only be its own work.