

Space for Notes



Karl Marx
***Capital* Volume One**

Part IV:
Production of Relative Surplus Value

Chapter 12:
The Concept of Relative Surplus-value

That portion of the working-day which merely produces an equivalent for the value paid by the capitalist for his labour-power, has, up to this point, been treated by us as a constant magnitude, and such in fact it is, under given conditions of production and at a given stage in the economic development of society. Beyond this, his necessary labour-time, the labourer, we saw, could continue to work for 2, 3, 4, 6, &c., hours. The rate of surplus-value and the length of the working-day depended on the magnitude of this prolongation. Though the necessary labour-time was constant, we saw, on the other hand, that the total working-day was variable. Now suppose we have a working-day whose length, and whose apportionment between necessary labour and surplus-labour, are given. Let the whole line a c, abc represent, for example, a working-day of 12 hours; the portion of a b 10 hours of necessary labour, and the portion b c 2 hours of surplus-labour. How now can the production of surplus-value be increased, i.e., how can the surplus-labour be prolonged, without, or independently of, any prolongation of a c?

Although the length of a c is given, b c appears to be capable of prolongation, if not by extension beyond its end c, which is also the end of the working-day a c, yet, at all events, by pushing back its starting-point b in the direction of a. Assume that b'b in the line ab'bc is equal to half of b c or to one hour's labour-time. If now, in a c, the working-day of 12 hours, we move the point b to b', b c becomes b' c; the surplus-labour increases by one half, from 2 hours to 3 hours, although the working-day remains as before at 12 hours. This extension of the surplus labour-time from b c to b' c, from 2 hours to 3 hours, is, however, evidently impossible, without a simultaneous contraction of the necessary labour-time from a b into a b', from 10 hours to 9 hours. The prolongation of the surplus-labour would correspond to a shortening of the necessary labour; or a portion of the labour-time previously consumed, in reality, for the labourer's own benefit, would be converted into labour-time for the benefit of the capitalist. There would be an alteration, not in the length of the working-day, but in its division into necessary labour-time and surplus labour-time.

On the other hand, it is evident that the duration of the surplus-labour is given, when the length of the working-day, and the value of labour-power, are given. The value of labour-power, i.e., the labour-time requisite to produce labour-power, determines the labour-time necessary for the reproduction of that value. If one working-hour be embodied in sixpence, and the value of a day's labour-power be five shillings, the labourer must work 10 hours a day, in order to replace the value paid by capital for his labour-power, or to produce an equivalent for the value of his daily necessary means of subsistence. Given the value of these means of subsistence, the value of his labour-power is given; [1] and given the value of his labour-power, the duration of his necessary labour-time is given. The duration of the surplus-labour, however, is arrived at, by subtracting the necessary labour-time from the total working-day. Ten hours subtracted from twelve, leave two, and it is not easy to see, how, under the given conditions, the surplus-labour can possibly be

prolonged beyond two hours. No doubt, the capitalist can, instead of five shillings, pay the labourer four shillings and sixpence or even less. For the reproduction of this value of four shillings and sixpence, nine hours' labour-time would suffice; and consequently three hours of surplus-labour, instead of two, would accrue to the capitalist, and the surplus-value would rise from one shilling to eighteen-pence. This result, however, would be obtained only by lowering the wages of the labourer below the value of his labour-power. With the four shillings and sixpence which he produces in nine hours, he commands one-tenth less of the necessaries of life than before, and consequently the proper reproduction of his labour-power is crippled. The surplus-labour would in this case be prolonged only by an overstepping of its normal limits; its domain would be extended only by a usurpation of part of the domain of necessary labour-time. Despite the important part which this method plays in actual practice, we are excluded from considering it in this place, by our assumption, that all commodities, including labour-power, are bought and sold at their full value. Granted this, it follows that the labour-time necessary for the production of labour-power, or for the reproduction of its value, cannot be lessened by a fall in the labourer's wages below the value of his labour-power, but only by a fall in this value itself. Given the length of the working-day, the prolongation of the surplus-labour must of necessity originate in the curtailment of the necessary labour-time; the latter cannot arise from the former. In the example we have taken, it is necessary that the value of labour-power should actually fall by one-tenth, in order that the necessary labour-time may be diminished by one-tenth, i.e., from ten hours to nine, and in order that the surplus labour may consequently be prolonged from two hours to three.

Such a fall in the value of labour-power implies, however, that the same necessaries of life which were formerly produced in ten hours, can now be produced in nine hours. But this is impossible without an increase in the productiveness of labour. For example, suppose a shoe-maker, with given tools, makes in one working-day of twelve hours, one pair of boots. If he must make two pairs in the same time, the productiveness of his labour must be doubled; and this cannot be done, except by an alteration in his tools or in his mode of working, or in both. Hence, the conditions of production, i.e., his mode of production, and the labour-process itself, must be revolutionised. By increase in the productiveness of labour, we mean, generally, an alteration in the labour-process, of such a kind as to shorten the labour-time socially necessary for the production of a commodity, and to endow a given quantity of labour with the power of producing a greater quantity of use-value. [2] Hitherto in treating of surplus-value, arising from a simple prolongation of the working-day, we have assumed the mode of production to be given and invariable. But when surplus-value has to be produced by the conversion of necessary labour into surplus-labour, it by no means suffices for capital to take over the labour-process in the form under which it has been historically handed down, and then simply to prolong the duration of that process. The technical and social conditions of the process, and consequently the very mode of production must be revolutionised, before the productiveness of labour can be increased. By that means alone can the value of labour-power be made to sink, and the portion of the working-day necessary for the reproduction of that value, be shortened.

The surplus-value produced by prolongation of the working-day, I call *absolute surplus-value*. On the other hand, the surplus-value arising from the curtailment of the necessary labour-time, and from the corresponding alteration in the respective lengths of the two components of the working-day, I call *relative surplus-value*.

In order to effect a fall in the value of labour-power, the increase in the productiveness of labour must seize upon those branches of industry whose products determine the value of labour-power, and consequently either belong to

the class of customary means of subsistence, or are capable of supplying the place of those means. But the value of a commodity is determined, not only by the quantity of labour which the labourer directly bestows upon that commodity, but also by the labour contained in the means of production. For instance, the value of a pair of boots depends not only on the cobbler's labour, but also on the value of the leather, wax, thread, &c. Hence, a fall in the value of labour-power is also brought about by an increase in the productiveness of labour, and by a corresponding cheapening of commodities in those industries which supply the instruments of labour and the raw material, that form the material elements of the constant capital required for producing the necessaries of life. But an increase in the productiveness of labour in those branches of industry which supply neither the necessaries of life, nor the means of production for such necessaries, leaves the value of labour-power undisturbed.

The cheapened commodity, of course, causes only a pro tanto fall in the value of labour-power, a fall proportional to the extent of that commodity's employment in the reproduction of labour-power. Shirts, for instance, are a necessary means of subsistence, but are only one out of many. The totality of the necessaries of life consists, however, of various commodities, each the product of a distinct industry; and the value of each of those commodities enters as a component part into the value of labour-power. This latter value decreases with the decrease of the labour-time necessary for its reproduction; the total decrease being the sum of all the different curtailments of labour-time effected in those various and distinct industries. This general result is treated, here, as if it were the immediate result directly aimed at in each individual case. Whenever an individual capitalist cheapens shirts, for instance, by increasing the productiveness of labour he by no means necessarily aims at reducing the value of labour-power and shortening, pro tanto the necessary labour-time. But it is only in so far as he ultimately contributes to this result, that he assists in raising the general rate of surplus-value. [3] The general and necessary tendencies of capital must be distinguished from their forms of manifestation.

It is not our intention to consider, here, the way in which the laws, immanent in capitalist production, manifest themselves in the movements of individual masses of capital, where they assert themselves as coercive laws of competition, and are brought home to the mind and consciousness of the individual capitalist as the directing motives of his operations. But this much is clear; a scientific analysis of competition is not possible, before we have a conception of the inner nature of capital, just as the apparent motions of the heavenly bodies are not intelligible to any but him, who is acquainted with their real motions, motions which are not directly perceptible by the senses. Nevertheless, for the better comprehension of the production of relative surplus-value, we may add the following remarks, in which we assume nothing more than the results we have already obtained.

If one hour's labour is embodied in sixpence, a value of six shillings will be produced in a working-day of 12 hours. Suppose, that with the prevailing productiveness of labour, 12 articles are produced in these 12 hours. Let the value of the means of production used up in each article be sixpence. Under these circumstances, each article costs one shilling: sixpence for the value of the means of production, and sixpence for the value newly added in working with those means. Now let some one capitalist contrive to double the productiveness of labour, and to produce in the working-day of 12 hours, 24 instead of 12 such articles. The value of the means of production remaining the same, the value of each article will fall to ninepence, made up of sixpence for the value of the means of production and threepence for the value newly added by the labour. Despite the doubled productiveness of labour, the day's labour creates, as before, a new value of six

shillings and no more, which, however, is now spread over twice as many articles. Of this value each article now has embodied in it $1/24$ th, instead of $1/12$ th, threepence instead of sixpence; or, what amounts to the same thing, only half an hour's instead of a whole hour's labour-time, is now added to the means of production while they are being transformed into each article. The individual value of these articles is now below their social value; in other words, they have cost less labour-time than the great bulk of the same article produced under the average social conditions. Each article costs, on an average, one shilling, and represents 2 hours of social labour; but under the altered mode of production it costs only ninepence, or contains only $1\frac{1}{2}$ hours' labour. The real value of a commodity is, however, not its individual value, but its social value; that is to say, the real value is not measured by the labour-time that the article in each individual case costs the producer, but by the labour-time socially required for its production. If therefore, the capitalist who applies the new method, sells his commodity at its social value of one shilling, he sells it for threepence above its individual value, and thus realises an extra surplus-value of threepence. On the other hand, the working-day of 12 hours is, as regards him, now represented by 24 articles instead of 12. Hence, in order to get rid of the product of one working-day, the demand must be double what it was, i.e., the market must become twice as extensive. Other things being equal, his commodities can command a more extended market only by a diminution of their prices. He will therefore sell them above their individual but under their social value, say at tenpence each. By this means he still squeezes an extra surplus-value of one penny out of each. This augmentation of surplus-value is pocketed by him, whether his commodities belong or not to the class of necessary means of subsistence that participate in determining the general value of labour-power. Hence, independently of this latter circumstance, there is a motive for each individual capitalist to cheapen his commodities, by increasing the productiveness of labour.

Nevertheless, even in this case, the increased production of surplus-value arises from the curtailment of the necessary labour-time, and from the corresponding prolongation of the surplus-labour. [4] Let the necessary labour-time amount to 10 hours, the value of a day's labour-power to five shillings, the surplus labour-time to 2 hours, and the daily surplus-value to one shilling. But the capitalist now produces 24 articles, which he sells at tenpence a-piece, making twenty shillings in all. Since the value of the means of production is twelve shillings, $14\frac{2}{5}$ of these articles merely replace the constant capital advanced. The labour of the 12 hours' working-day is represented by the remaining $9\frac{3}{5}$ articles. Since the price of the labour-power is five shillings, 6 articles represent the necessary labour-time, and $3\frac{3}{5}$ articles the surplus-labour. The ratio of the necessary labour to the surplus-labour, which under average social conditions was 5:1, is now only 5:3. The same result may be arrived at in the following way. The value of the product of the working-day of 12 hours is twenty shillings. Of this sum, twelve shillings belong to the value of the means of production, a value that merely re-appears. There remain eight shillings, which are the expression in money, of the value newly created during the working-day. This sum is greater than the sum in which average social labour of the same kind is expressed: twelve hours of the latter labour are expressed by six shillings only. The exceptionally productive labour operates as intensified labour; it creates in equal periods of time greater values than average social labour of the same kind. (See Ch. I. Sect 2. p. 44.) But our capitalist still continues to pay as before only five shillings as the value of a day's labour-power. Hence, instead of 10 hours, the labourer need now work only $7\frac{1}{2}$ hours, in order to reproduce this value. His surplus-labour is, therefore, increased by $2\frac{1}{2}$ hours, and the surplus-value he produces grows from one, into three shillings. Hence, the capitalist who applies the improved method of production, appropriates to surplus-labour a greater portion of the working-day, than the other capitalists in the same trade. He does individually,

what the whole body of capitalists engaged in producing relative surplus-value, do collectively. On the other hand, however, this extra surplus-value vanishes, so soon as the new method of production has become general, and has consequently caused the difference between the individual value of the cheapened commodity and its social value to vanish. The law of the determination of value by labour-time, a law which brings under its sway the individual capitalist who applies the new method of production, by compelling him to sell his goods under their social value, this same law, acting as a coercive law of competition, forces his competitors to adopt the new method. [5] The general rate of surplus-value is, therefore, ultimately affected by the whole process, only when the increase in the productiveness of labour, has seized upon those branches of production that are connected with, and has cheapened those commodities that form part of, the necessary means of subsistence, and are therefore elements of the value of labour-power.

The value of commodities is in inverse ratio to the productiveness of labour. And so, too, is the value of labour-power, because it depends on the values of commodities. Relative surplus-value is, on the contrary, directly proportional to that productiveness. It rises with rising and falls with falling productiveness. The value of money being assumed to be constant, an average social working-day of 12 hours always produces the same new value, six shillings, no matter how this sum may be apportioned between surplus-value and wages. But if, in consequence of increased productiveness, the value of the necessaries of life fall, and the value of a day's labour-power be thereby reduced from five shillings to three, the surplus-value increases from one shilling to three. Ten hours were necessary for the reproduction of the value of the labour-power; now only six are required. Four hours have been set free, and can be annexed to the domain of surplus-labour. Hence there is immanent in capital an inclination and constant tendency, to heighten the productiveness of labour, in order to cheapen commodities, and by such cheapening to cheapen the labourer himself. [6]

The value of a commodity is, in itself, of no interest to the capitalist. What alone interests him, is the surplus-value that dwells in it, and is realisable by sale. Realisation of the surplus-value necessarily carries with it the refunding of the value that was advanced. Now, since relative surplus-value increases in direct proportion to the development of the productiveness of labour, while, on the other hand, the value of commodities diminishes in the same proportion; since one and the same process cheapens commodities, and augments the surplus-value contained in them; we have here the solution of the riddle: why does the capitalist, whose sole concern is the production of exchange-value, continually strive to depress the exchange-value of commodities? A riddle with which Quesnay, one of the founders of Political Economy, tormented his opponents, and to which they could give him no answer. "You acknowledge," he says, "that the more expenses and the cost of labour can, in the manufacture of industrial products, be reduced without injury to production, the more advantageous is such reduction, because it diminishes the price of the finished article. And yet, you believe that the production of wealth, which arises from the labour of the workpeople, consists in the augmentation of the exchange-value of their products." [7]

The shortening of the working-day is, therefore, by no means what is aimed at, in capitalist production, when labour is economised by increasing its productiveness. [8] It is only the shortening of the labour-time, necessary for the production of a definite quantity of commodities, that is aimed at. The fact that the workman, when the productiveness of his labour has been increased, produces, say 10 times as many commodities as before, and thus spends one-tenth as much labour-time on each, by no means prevents him from continuing to work 12 hours as before, nor from producing in those 12 hours 1,200 articles instead of 120. Nay, more, his

working-day may be prolonged at the same time, so as to make him produce, say 1,400 articles in 14 hours. In the treatises, therefore, of economists of the stamp of MacCulloch, Ure, Senior, and *tutti quanti*, we may read upon one page, that the labourer owes a debt of gratitude to capital for developing his productiveness, because the necessary labour-time is thereby shortened, and on the next page, that he must prove his gratitude by working in future for 15 hours instead of 10. The object of all development of the productiveness of labour, within the limits of capitalist production, is to shorten that part of the working-day, during which the workman must labour for his own benefit, and by that very shortening, to lengthen the other part of the day, during which he is at liberty to work gratis for the capitalist. How far this result is also attainable, without cheapening commodities, will appear from an examination of the particular modes of producing relative surplus-value, to which examination we now proceed.

Footnotes

[1] The value of his average daily wages is determined by what the labourer requires "so as to live, labour, and generate." (Wm. Petty: *Political Anatomy of Ireland*, 1672, p. 64.) "The price of Labour is always constituted of the price of necessaries ... whenever ... the labouring man's wages will not, suitably to his low rank and station, as a labouring man, support such a family as is often the lot of many of them to have," he does not receive proper wages. (J. Vanderlint, l.c., p. 15.) "Le simple ouvrier, qui n'a que ses bras et son industrie, n'a rien qu'autant qu'il parvient à vendre à d'autres sa peine... En tout genre de travail il doit arriver, et il arrive en effet, que le salaire de l'ouvrier se borne à ce qui lui est nécessaire pour lui procurer sa subsistance." (Turgot, "Réflexions, &c.," *Oeuvres*, éd. Daire t. I, p. 10.) "The price of the necessaries of life is, in fact, the cost of producing labour." (Malthus, *Inquiry into, &c., Rent*, London, 1815, p. 48, note.)

[2] "Quando si perfezionano le arti, che non è altro che la scoperta di nuove vie, onde si possa compiere una manifattura con meno gente o (che è lo stesso) in minor tempo di prima." (Galvani, l.c., p. 159.) "L'économie sur les frais de production ne peut donc être autre chose que l'économie sur la quantité de travail employé pour produire." (Sismondi, *Etudes*, t. I, p. 22.)

[3] "Let us suppose ... the products ... of the manufacturer are doubled by improvement in machinery ... he will be able to clothe his workmen by means of a smaller proportion of the entire return ... and thus his profit will be raised. But in no other way will it be influenced." (Ramsay, l.c., pp. 168, 169.)

[4] "A man's profit does not depend upon his command of the produce of other men's labour, but upon his command of labour itself. If he can sell his goods at a higher price, while his workmen's wages remain unaltered, he is clearly benefited.... A smaller proportion of what he produces is sufficient to put that labour into motion, and a larger proportion consequently remains for himself." (*Outlines of Pol. Econ.* London, 1832, pp. 49, 50.)

[5] "If my neighbour by doing much with little labour, can sell cheap, I must contrive to sell as cheap as he. So that every art, trade, or engine, doing work with labour of fewer hands, and consequently cheaper, begets in others a kind of necessity and emulation, either of using the same art, trade, or engine, or of inventing something like it, that every man may be upon the square, that no man may be able to undersell his neighbour." (*The Advantages of the East India Trade to England*, London, 1720, p. 67.)

[6] "In whatever proportion the expenses of a labourer are diminished, in the same proportion will his wages be diminished, if the restraints upon industry are at the same time taken off." (*Considerations Concerning Taking off the Bounty on Corn Exported, &c.*, London, 1753, p. 7.) "The interest of trade requires, that corn and all provisions should be as cheap as possible; for whatever makes them dear, must make labour dear also ... in all countries, where industry is not restrained, the price of provisions must affect the price of labour. This will always be diminished when the necessaries of life grow cheaper." (l.c., p. 3.) "Wages are decreased in the same proportion as the powers of production increase. Machinery, it is true, cheapens the necessaries of life, but it also cheapens the labourer." (*A Prize Essay on the Comparative Merits of Competition and Co-operation*. London, 1834, p. 27.)

[7] "Ils conviennent que plus on peut, sans préjudice, épargner de frais ou de travaux dispendieux dans la fabrication des ouvrages des artisans, plus cette épargne est profitable par la diminution des prix de ces ouvrages. Cependant ils croient que la production de richesse qui résulte des travaux des artisans consiste dans l'augmentation de la valeur vénale de leurs ouvrages." (Quesnay: *Dialogues sur le Commerce et les Travaux des Artisans*. pp. 188, 189.)

[8] "Ces spéculateurs si économes du travail des ouvriers qu'il faudrait qu'ils payassent." (J. N. Bidaut:

Du Monopole qui s'établit dans les arts industriels et le commerce. Paris, 1828, p. 13.) "The employer will be always on the stretch to economise time and labour." (Dugald Stewart: *Works ed.* by Sir W. Hamilton, Edinburgh, v., viii., 1855. "Lectures on Polit. Econ.," p. 318.) "Their (the capitalists') interest is that the productive powers of the labourers they employ should be the greatest possible. On promoting that power their attention is fixed and almost exclusively fixed." (R. Jones: *I.c.*, Lecture III.)

Transcribed by Hinrich Kuhls