The *Grundrisse* (The 1857-58 Manuscript)

The Chapter on Capital: Part 10

Relative Surplus Value (I): The Effect of a Rise in the Productivity of Labour on the "Value of Capital" (pp. 333-341)

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We have seen that it is the case that if the worker only needs to work "half a working day to in order to live a whole one", then, first, "[o]nly half a day's work is objectified in his labouring capacity", and, second, "[b]y appropriating the entire day's work and then consuming it in the production process [...] the capitalist creates the surplus value of his capital; in this case, half a day of objectified labour." (Marx 1973, pp. 333-4)

Now let us imagine that that "productive powers of labour" ("*die Productivkräfte der Arbeit*"; Marx 2006, pp. 248-9) *double*, so that the same labour produces twice the mass of use value in a given time.[1] Now the worker has to work only a quarter of a day to live a full day; and the surplus value increases to three quarters of a day.

It is inherent (or immanent) to capital to do this, to raise the productivity of labour in order to produce more surplus value. Capital in the form of the general form of wealth, i.e. as money, is *self-reproductive*; by its nature; therefore, "capital is the endless and limitless drive to go beyond its limiting barrier". Each boundary that capital encounters is a barrier to be overcome. "Capital as such creates a specific surplus value because it cannot create an infinite one all at once; but it is the constant movement to create more of the same." (Marx 1973, p. 334)

Marx observes that the relative magnitude of the increase in the surplus value is not equal to that of the rise in the productivity of labour. In the case just discussed, the rise in productivity was of a factor of 2, the surplus value increased from $\frac{1}{2}$ a day to $\frac{3}{4}$, an increase of 50%. (Marx will return to this point shortly.) "This shows, then, that surplus labour (from the worker's standpoint) or surplus value (from capital's standpoint) does not grow in the same numerical proportion as the productive force. Why?" he asks. (Marx 1973, p. 335)

[1] "For the moment, use value is defined in the present relation as only that which the worker consumes in order to stay alive as a worker; the quantity of the means of life for which, through the mediation of money, he exchanges the labour objectified in his living labouring capacity." (Marx 1973, p. 334)

The doubling of the productive force means the reduction of necessary labour by $\frac{1}{4}$ of a day and an increase in surplus value produced by $\frac{1}{4}$ (the decline in necessary labour in absolute terms—measured in either time or money—is naturally always equal to the increase in surplus value produced). In turn, the decrease in the necessary labour is inversely proportional to the rise in productivity (under the suppositions operative here): if the productivity of labour increases by a factor of 2 (if a given amount of labour produces double the use value product) then the resulting necessary labout-time will be half what it was previously. If the working day is fixed,[2] then the proportion of the working day given over to necessary labour will also vary inversely with the rise in productivity (if, as in the case above, productivity doubles, then, if necessary labour-time is previously $\frac{1}{x}$ of the working day, then it will fall to $\frac{1}{2x}$).

> The extent to which the productive force of labour increases the value of capital thus depends on the original relation between the portion of labour objectified in the worker and his living labour. This portion is always expressed as a fractional part of the whole working day, $\frac{1}{3}$, $\frac{2}{3}$, etc. The increase in productive force, i.e. its multiplication by a given amount, is equal to a division of the numerator or the multiplication of the denominator of this fraction by the same amount. (Marx 1973, p. 337)

This leads to the following interesting conclusion: "the largeness or smallness of the increase of value depends not only on the number which expresses the multiplication of the productive force, but equally on the previously given relation which makes up the part of the work day belonging to the price of labour." (Marx 1973, p. 337) The greater the proportion of the working day dedicated to necessary labour the greater the effect of a given rise in the productivity of labour on the mass of surplus value produced. What Marx here calls "relative surplus value" (Marx 1973, p. 338), that increase in surplus value (Marx confusingly calls "surplus value" "value" in this part of the text) produced as a proportion to total surplus value will vary with the proportion of the working day dedicated to necessary labour: the smaller (say) the latter, the smaller the former.

Marx summarises what he has discovered.

First, "[t]he increase in the productive force of living labour increases the value of capital [increases the magnitude of surplus value produced per worker] (or diminishes the value of the worker [decreases the necessary labour carried out per worker])". It does this, "not because it increases the quantity of products or use values created by the same labour—the productive force of labour is its natural force—but rather because it diminishes necessary labour, hence, in the same relation as it diminishes the former, it creates surplus labour or, what amounts to the same thing, surplus value." (Marx 1973, p. 339) (We can say this differently. An increase in the productivity of labour does not increase the amount of surplus value produced per worker in itself, but only to the extent that it reduces the labour time necessary for the reproduction of the worker (assuming either a constant working day or that in the case of a fall in the length of the working day that this does not mitigate the effect of the decrease in the magnitude of necessary labour).

[2] However, as Marx notes, capitalists will seek to prolong the working day if they can. "Messrs the manufacturers have, however, also prolonged it into the night, [...] The working day itself does not recognise daylight as a limit [...]." (Marx 1973, p. 336n49). Here, Marx makes an abbreviated note to "the ten hours' bill" (the series of acts passed around the middle of the nineteenth century with the intention of limiting the length of the working day and enforcing this restriction), presumably as a reference to the attempts by the employers to circumvent its restrictions. (Fuller discussion of this, Marx notes, "belongs to the chapter on wages.")

Second. As we have already noted, "[t]he surplus value of capital does not increase as does the multiplier of the productive force [...], but by the surplus of the fraction of the living work day which originally represents necessary labour, in excess over this same fraction divided by the multiplier of the productive force." (Marx 1973, p. 339) (One consequence of this, Marx notes, is that an increase in the productivity of labour will affect the ratio between surplus and necessary labour differently in different branches of industry and across different countries according to the different weights of necessary labour in the working day.[3])

Third. As we have also noted, the proportional increase in the surplus value produced depends not only on the proportional increase in the productivity of labour (of that labour that produces articles of workers' means of subsistence) but also on the proportion of the working day represented by necessary labour. This last is a function of the *level of development of capital*: "the more developed capital already is, the more surplus labour it has created, the more terribly must it develop the productive force in order to realise itself in only smaller proportion, i.e. to add surplus value—because its barrier always remains the relation between the fractional part of the day which expresses *necessary labour*, and the entire working day. It can move only within these boundaries." (Marx 1973, p. 340)

At this point Marx inserts the following cryptic comment: "[a]ll these statements [are] correct only in this [level of] abstraction for the relation from the present standpoint [i.e. at the present stage of the analysis]. Additional relations will enter which modify them significantly. The whole, to the extent that it proceeds entirely in generalities, *actually already belongs in the doctrine of profit*." (Marx 1973, p. 341)

What we have seen so far is the following. The growth in the productivity of labour is the basis "for the growth of [surplus] value" and the "realisation" (Marx says "*Verwertung*") of capital. As capital is "the infinite urge to wealth, it strives consistently towards infinite increase of the productive forces of labour and calls them into being." However, even though a higher level of productivity of labour results in a greater mass of use value, here we are considering it as an increase in the productive force of *capital*.

[3] However: "This relation [the relation between necessary labour and surplus labour] would naturally be the same in all branches of business in a system of free competition, if labour were simple labour everywhere, hence necessary labour the same. (If it represented the same amount of objectified labour.)" (Marx 1973, p. 340)

References

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