

Capital, Capitalism and Health

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Abstract

The Covid-19 pandemic has contributed to increased scholarly attention to an important ‘human need’: good health. This article is about the relation between workers’ health and capitalist production, as Marx examines it in his *magnum opus*. While Marx’s main focus in *Capital Volume I* is on the production of surplus value by workers and its appropriation by capitalists, he does provide insights into how capitalism ruins the health of workers themselves, although these insights are scattered. In this article, I systematically re-articulate and analyse Marx’s thoughts about workers’ health in relation to some of the key-categories of his political economy: the value of labour power relative to wages; employment precarity; long working day; hidden abode of production; capitalists’ despotic control over workers; and the capitalist transformation of nature. I briefly relate Marx’s ideas about workers’ health from *Capital Volume I* to some contemporary research on the social dimensions of health. I also show that Marx’s explicit ideas about workers’ health, which are my main focus, point to a broader approach to the topic that is only implicit in his thinking. I draw out some practical implications of this approach.

Keywords

political economy, Marx, *Capital Volume I*, capitalism, workers, health, class dimensions of health

Introduction

The Covid-19 pandemic has contributed to an enhanced scholarly attention to an important human need: good health (Freudenberg, 2021a; Mair, 2020). This article is about the relation between workers’ health and capitalist production, as Marx sees it in his *magnum opus*. Marx’s *Capital*, and especially, *Capital Volume I*, critically examines the political economy of capitalist society. Marx’s main focus is on the commodity production and on the production of surplus value and its appropriation by capitalists from workers. However, there are also useful insights into an important part of workers’ life: health. According to Marx, in the capitalist society, workers’ health (physical and mental) is severely compromised. Marx (2015 [1887]) says: ‘the capitalist mode of production. . . has seized *the vital power* of the people by the very root’ (p. 181, italics added).¹

Engels, Marx’s co-writer, independently wrote about workers’ health (he did this many years prior to Marx did). Engels (1845) indeed produced a complete volume on the subject of ill-health

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and poverty of the British working class. He has deservedly received much attention for his work on health (see Collyer, 2015), and especially, for his concept of social murder (avoidable deaths due to the operation of capitalism) that has been used in the context of the Covid-19 pandemic (Abbasi, 2021). However, it might not be an exaggeration to say that Marx's views on health have not received the systematic attention in recent times that Engels has. Besides, Marx emphasizes the link between health and the *workplace* more than Engels happens to do (this does not mean there is any difference between them on the importance of production or the workplace). But Marx's ideas are scattered throughout *Capital Volume 1*, so there is a need to re-articulate these in a systematic manner. Such a task may have an educational value. It may also be a part of the preparatory task required for not only a critical re-theorization of health-workplace linkage but also a concrete (empirical) study of that linkage in specific historical and geographical contexts.

In this article, I re-articulate Marx's thoughts about the impacts on workers' health, of multiple aspects of capitalist production. In particular, I focus on workers' health in relation to: the value of labour power as a commodity relative to wages, employment precarity (un- and under-employment) and the resultant low income; long working day; the physical conditions at the site of production; the despotic control over workers by capitalists; and the capitalist transformation of nature. In the penultimate section, I briefly relate this discussion to some contemporary research, and draw out implications of Marx's discussion for a broader theoretical understanding of the topic beyond the workplace, and for working class struggle over health. I present what I call a class dimensions of health approach.

The Value of Labour Power, Wages and Precarity

Wages below Value of Labour Power

In capitalism, commodities are expected to be exchanged on the basis of their value (socially necessary labour time expressed as monetary cost of production). Labour power, or the physical and mental ability to produce which a reasonably health individual has, is bought and sold as a commodity. In many respects, it *is* like other commodities: 'The value of labour-power is determined, as in the case of every other commodity, by the labour time necessary for the production, and consequently also the reproduction, of this special article' (Marx, 2015 (1887): 120). As the monetary form of the value of labour power, wage should be equal to the cost of production (and reproduction) of labour power. In other words, wage must be adequate enough to ensure that workers' 'natural wants, such as food, clothing, fuel, and housing' and so on (p. 121) are met so that workers can return to work daily with a healthy body and mind:

If the owner of labour-power works to-day, to-morrow [they] must again be able to repeat the same process in the same conditions as regards *health and strength*. [Their] means of subsistence must therefore be sufficient to maintain [them] in [their] normal state as a labouring individual. (Marx, 2015 (1887): 121; italics added)

But, in reality, wages fall *below* the value of labour power for millions of people, which is why they cannot meet their needs. They become the 'labouring poor' (those who work *and* remain poor). This situation, which can be called 'super-exploitation', makes people fall ill (p. 121).

The minimum limit of the value of labour-power is determined by the value of the commodities, without the daily supply of which the labourer cannot renew his [or her] *vital energy*, consequently by the value of those means of subsistence that are *physically indispensable*. If the price of labour-power fall to this minimum, it falls below its value, since under such circumstances it can be maintained and developed only in a *crippled* [or, unhealthy] *state*. (p. 122; italics added)

Assuming that the resources needed for good health (e.g. medicine, hospital facility and doctor's advice) are commodities, if wages fall below the value of labour power, people cannot access these resources. They cannot, therefore, lead a healthy life.

Furthermore, workers are forced to buy low-quality or adulterated food. Even if 'a very large part of the working-class [is] . . . well aware of this adulteration', they 'nevertheless accept the alum, stone-dust, &c' (p. 124). This is because wages are so low that they do not have the money to buy good quality food. Adulterated food cannot provide adequate nutrition and can therefore be a major reason for illness.

The working class is not one homogeneous entity, at a concrete level. There is the distinction between skilled and unskilled labour, for example. This has an important implication for wages and consequently for health. Skilled labour gets paid more than unskilled labour. However, this distinction between skilled and unskilled labour does not always reflect the difference in the expenditure of energy in the workplace. So, it does not reflect the interest of many unskilled workers: 'The distinction between skilled and unskilled labour rests in part . . . on the helpless condition of some groups of the working-class, a condition that prevents them from exacting equally with the rest the value of their labour-power' [Marx, 2015 (1887): 140]. Often those who perform dangerous work, which can adversely impact their health, do not get paid as skilled workers. For example, 'although the labour of a fustian cutter demands great bodily exertion, and is at the same time unhealthy, yet it counts only as unskilled labour' (p. 140). If a given type of work demands above-average amount of bodily and mental exertion and yet it is considered unskilled or less skilled, then the resultant low wage does not cover the full cost of the reproduction of labour power which must now include the expenses necessary to deal with the extra wear and tear. This situation can contribute to illness.

Employment Precarity

People's income, and therefore, their ability to access resources needed for good health, depend not only on wages but also on employment (number of hours worked).² But employment is not guaranteed. A major characteristic of the working class is that it lacks control over property. The only property it normally has is its own ability to perform labour. But unless capitalists can make a profit by hiring a worker, the worker will not be hired. Whether or not one gets hired depends on capital's need for one. That need constantly changes, causing a situation of precarity in employment. Other things constant, as Marx explains in Chapter 25 of *Capital Volume 1*, if because of a rise in investment, wages rise which may reduce profit, a time comes when investment slows down, or capital resorts to technical change to reduce the reliance on wage-labour. Such a strategy increases unemployment/under-employment. And an unemployed/under-employed person lacks the resources to meet her or his need for food, medicine, vacation time for recuperation, and so on. That is why often sections of the reserve army of labour (unemployed and under-employed people) are stunted and have a short life:

[Capital produces] a constant excess of population, i.e., an excess in relation to the momentary requirements of surplus labour-absorbing capital, although this excess is made up of generations of human beings *stunted, short-lived*, swiftly replacing each other, plucked, so to say, before maturity. (p. 181)

Low Income

As mentioned before, one's income is normally a function of wages and employment. When wage falls below the value of labour power and/or when one is un-employed or under-employed, other

things constant, one will not have enough resources to lead a healthy life. Food and housing (apart from access to medicine and medical facilities) are among the most important social determinants of health (SDH). Or, more generally, poverty is an important determinant of health. And poverty is the inevitable effect of capitalist production. The poverty of the working class and the affluence of the bourgeoisie are internally linked:

in the selfsame relations in which wealth is produced, poverty is produced also. . . . [The bourgeois class] relations produce . . . the wealth of the bourgeois class, only by continually annihilating the wealth of the individual members and by producing an evergrowing proletariat. (p. 496)

The term ‘selfsame relations’ indicates the *causal* importance Marx gives to social *relations*. It refers to, among other things, (a) relations of competition among capitalists leading to technical change causing employment precarity and (b) relations of exploitation or super-exploitation. If wages fall *much* below the value of labour power, hunger may result. In capitalism ‘Everything . . . depends upon making hunger permanent among the working class’ because the hunger of some is expected to force others (the non-hungry) to work harder (p. 452). There is an ‘intimate connexion between the pangs of hunger of the most industrious layers of the working class, and the extravagant consumption, coarse or refined, of the rich, for which capitalist accumulation is the basis’ (p. 458). And hunger can be said to be a prelude to illness. It is not a wild imagination that the half-starved souls’ ability to fight infection, pollution, and other unfavourable conditions, including in the workplace (discussed later) is compromised. In capitalism, ‘the increase of the death-rate through [illnesses such as] tuberculosis, scrofula, etc., [and] increases in intensity with the deterioration of the physical condition of the population . . . [are due to] poverty’ (p. 500).

When income drops, it is not just that access to food is denied or reduced. The low-income people cannot also afford decent dwellings. Inadequate dwellings are unhealthy. Marx says: ‘the greater the centralisation of the means of production, the greater is the corresponding heaping together of the labourers, within a given space’, and ‘the swifter capitalistic accumulation, the more miserable are the dwellings of the working-people’ (p. 458). At a given point in time, if a given space is needed for the affluent people or for the reproduction of the capitalist system as such, the poor are denied – they are dispossessed of – access to it:

‘Improvements’ of towns, accompanying the increase of wealth, by the demolition of badly built quarters, the erection of palaces for banks, warehouses, &c., the widening of streets for business traffic, for the carriages of luxury, and for the introduction of tramways, &c., drive away the poor into even *worse and more crowded hiding places*. (p. 458; italics added)

Crowded neighbourhoods are not conducive to good health. Dwellings, which become unaffordable thanks to housing speculation and so on turn into ‘the mines of misery’ (p. 458). ‘[P]overty robs the workman of the conditions most essential to his [or her] labour, of space, light and ventilation’ (p. 305).

Long Hours of Work

While for some workers, un-employment and under-employment is a curse; for others, having to work excessively long hours is a big problem. Both tendencies coexist in capitalism. Just as wages are expected to be enough to pay for the normal expenses, the length of the working day should be reasonable to ensure that the worker gets enough rest. On the contrary, workers are forced to work

longer than their body-mind complex can normally tolerate. Long working days ruin workers' physical and mental/spiritual health.

Capital does not allow: '[t]ime for education, for intellectual development' and 'for the free-play of his [or her] bodily and mental activity' (pp. 178–179). Capital 'usurps the time for growth, development, and healthy maintenance of the body' (p. 179). For the capitalists:

It is not the *normal maintenance* of the labour-power which is to determine the limits of the working day; it is the greatest possible daily expenditure of labour-power, no matter how *diseased*, compulsory, and *painful* it may be, which is to determine the limits of the labourers' period of repose. (p. 179)

As the working day is very long forcing the worker to incur an 'extra expenditure of labour time' (p. 163), workers' body is tired, but the time for rest is limited:

[Capital] reduces the *sound sleep* needed for the *restoration, reparation, refreshment of the bodily powers* to just so many hours of torpor as the revival of an organism, absolutely *exhausted*, renders essential. (p. 179; italics added)

By forcing men and women to work long hours, capital does not allow them to have the time 'for the fulfilling of social functions and for social intercourse' (pp. 178–179). As well, 'Compulsory work for the capitalist usurped the place, not only of the children's play, but also of free labour at home within moderate limits for the support of the family' (p. 272). To the extent that social intercourse and support for familial relations contribute to happiness, capital, by denying time for all this, undermines mental health.

Marx raises, albeit indirectly, the issue of the absence of childcare and its effect on children's health. Talking about the 1860s England, Marx says:

the high death-rates are . . . principally due to the employment of the mothers away from their homes, and to the neglect and maltreatment, consequent on her absence, such as, amongst others, *insufficient nourishment, unsuitable food, and dosing with opiates*; besides this, there arises an unnatural estrangement between mother and child, and as a consequence intentional starving and poisoning of the children. (p. 273; italics added)

There is something to be said for the need for parental, or other care-givers', care for children. When parents are away at work and when alternative childcare is not available, children's mental and physical health is likely to be compromised.

On the whole: 'Capital cares nothing for *the length of life* of labour-power'. By excessively extending the working day,

The capitalistic mode of production . . . produces . . . not only the deterioration of human labour-power by robbing it of its *normal, moral [=intellectual or mental or spiritual] and physical, conditions of development* and function. It produces also the *premature exhaustion and death* of this labour power itself. (p. 179; italics added)

Capitalist production is ordinarily based on the law of equal exchange of commodities. In the worker's voice speaking to the capitalist, Marx explains the law:

by means of the price that you pay for . . . [my labour power] each day, I must be able to reproduce it daily, and to sell it again. Apart from natural *exhaustion* through age, &c., I must be able on the morrow to work with the same normal amount of *force, health and freshness* as to-day. (p. 163; italics added)

When the working day is excessively prolonged, ‘the price of labour-power may fall below its value’ (p. 371). This is because the expenses that workers need to incur in order deal with the extra wear and tear are not included in the price of labour power (wage):

The value of a day’s labour-power is . . . estimated from its normal average duration, or from the normal duration of life among the labourers, and from corresponding normal transformations of organised bodily matter into motion . . .

Up to a certain point, the increased wear and tear of labour-power, inseparable from a lengthened working day, may be compensated by higher wages. But beyond this point the wear and tear increases in geometrical progression, and every condition suitable for the normal reproduction and functioning of labour-power is suppressed. The price of labour-power and the degree of its exploitation cease to be commensurable quantities. (p. 371)

In other words, with working-life artificially shortened due to overwork, a worker gives in, say, 10 years, what they would have given in 30 years, but they get paid for 10 years only. Here is Marx in the worker’s voice:

If the average time that (doing a reasonable amount of work) an average labourer can live, is 30 years, the value of my labour power, which you [still] pay me from day to day is $1/(365 \times 30)$ or $1/10950$ of its total value. But if you consume it in 10 years, you pay me daily $1/10950$ instead of $1/3650$ of its total value, i.e., only $1/3$ of its daily value, and you rob me, therefore, every day of $2/3$ of the value of my commodity. You pay me for one day’s labour-power, whilst you use that of 3 days.

If the capitalists pay a worker ‘for one day’s labour-power’ while using ‘that of 3 days’ (Marx, 2015 [1887]:163), clearly this will affect the worker’s health adversely. Marx explains the process in plain English by using the worker’s voice once again:

I will . . . husband my sole wealth, labour-power, and abstain from all foolish waste of it. I will each day spend, set in motion, put into action only as much of it as is compatible with its normal duration, and *healthy development*. By an *unlimited extension* of the working day, you may in one day use up a quantity of labour power greater than I can restore in three. What you gain in labour I lose in substance. The use of my labour-power and *the spoliation of it* are quite different things. . . . That is against our contract and the law of exchanges I demand the normal working day because I, like every other seller, demand the value of my commodity. (p. 163; italics added)

So, the prolongation of the working day that adversely affects workers’ health violates the capitalist law of exchange. And, precisely because of this violation, that is, because workers work excessively long hours at the expense of their health, long-term interests of the capitalist class as a whole, are threatened. This is because more value (a greater quantity of resources in their commodity form) needs to be spent to reproduce a healthy working class – to replenish the used-up forces – to be made available for work:

the value of the labour-power includes the value of the commodities necessary for the reproduction of the worker, or for the keeping up of the working-class. If then the *unnatural extension* of the working day, that capital necessarily strives after in its unmeasured passion for self-expansion, *shortens the length of life of the individual labourer*, . . . the forces used up have to be replaced at a more rapid rate and the sum of the expenses for the reproduction of labour-power will be greater . . . (p. 179; italics added)

Therefore, ‘the interest of capital itself points in the direction of a normal working day’ (p. 179). This means that ‘the interest of capital itself’ is *against* the excessive prolongation of the working day that produces bad health. ‘Capital . . . has such good reasons for denying the sufferings of the legions of workers that surround it’ (p. 181): if due to illness, there is a reduction in the number of workers available to work at a wage capital is willing to pay, this will adversely impact production and profit-making. But capital ‘is in practice moved as much and as little by the sight of the coming degradation and final depopulation of the human race, as by the probable fall of the earth into the sun’ (p. 181). A capitalist ‘may be a model citizen’ and may even be ‘a member of the Society for the Prevention of Cruelty to Animals’ (p. 163) but they do not care for the health of workers. The working day is prolonged, and bad health produced. We have seen *how* this happens, but the question is: *why*?

One reason, obviously, is that the longer the workers work, other things constant, the more is the surplus value and therefore profit. Using the voice of the worker again, Marx says: ‘The commodity that I have sold to you differs from the crowd of other commodities, in that its use creates value, and a value greater than its own. That is why you bought it’ (p. 163). But how much greater? What are the limits?

In pursuit of a value greater than the value of labour power, capitalists make workers work very long hours at the cost of their health. But capital is indifferent towards workers’ health: ‘*in its blind unrestrainable passion, its were-wolf hunger for surplus labour, capital oversteps not only the moral, but even the merely physical maximum bounds of the working day*’ (p. 179; italics added). Using the voice of the capitalist this time, Marx explains the situation: ‘To the out-cry as to the *physical and mental degradation, the premature death, the torture of over-work, it answers: Ought these to trouble us since they increase our profits?*’ (p. 181; italics added).

Capital as a whole would be interested in more surplus labour, which can come from long working days which in turn adversely affect workers’ health. However, capital as a whole has also an interest in shorter working days and in better health of workers. But here comes the coercive laws of capitalist competition among individual capitalists. After all: capital as a whole exists in the form of individual competing capitals. Driven by the competitive pressure to reduce the cost of production, every capitalist is forced to extract as much work as possible from their workers. This tendency, in many cases, is expressed in the form of excessive overwork which ruins workers’ health. The excessive prolongation of the working day ‘does not . . . depend on the good or ill will of the individual capitalist. Free competition brings out the inherent laws of capitalist production, in the shape of external coercive laws having power over every individual capitalist’ (p. 181). So bad health due to excessive overwork is to be explained at the level of capital as a whole *and* in terms of the competitive interests of individual capitalists. Individual capitalists may be aware of this, but they are helpless:

In every stockjobbing swindle everyone knows that some time or other the crash must come, but every one hopes that it may fall on the head of his [or her] neighbour, after he himself has caught the shower of gold and placed it in safety.

In fact, capitalism’s law of exchange itself puts *no* limit to how long the worker is made to work. According to this law, ‘the consumption of the commodity belongs not to the seller who parts with it, but to the buyer, who acquires it’ (p. 163). This means that as soon as the labour contract is completed, the commodity (labour power) does not belong to the worker anymore. Rather, to the capitalist ‘belongs the use of . . . daily labour-power’ of the worker (p. 163). So the capitalist tries to squeeze out as much labour as possible. This causes harm to the worker’s health.

To repeat: the fact that working day is prolonged does not depend on the will of *individual capitalists* even if *capital as a whole* needs a healthy workforce. That is why ‘Capital is reckless of the

health or length of life of the labourer, unless under compulsion from society' (p. 181; italics added). Marx asks:

What could possibly show better the character of the capitalist mode of production, than the necessity that exists for forcing upon it, by Acts of Parliament, the simplest [measures] . . . for maintaining *cleanliness and health?* (p. 316; italics added)

Capital can go on ruining the health of workers partly thanks to the geography of capitalism. If due to excessively long hours and other unhealthy aspects of capitalist production, the supply of healthy labourers is adversely affected in cities, capitalists can get healthy labourers from rural areas:

the degeneration of the industrial population is only retarded by the constant absorption of primitive and physically uncorrupted elements from the country. (p. 181)

Hidden Abode of Production

Workers spend a large part of their life in the workplace where goods and services are produced as commodities for private profit. Therefore, conditions in the workplace affect the quality of workers' life, and especially, health. In *Capital Volume 3*, Marx (2010a [1894]: 55) says:

Since the labourer passes the greater portion of his [or her] life in the process of production, the conditions of the production process are largely the conditions of his [or her] active living process, or his [or her] *living conditions*. (italics added)

Physical Conditions in the Workplace

An important aspect of capitalist society is its 'hidden abode of production' (p. 123): the workplace where surplus labour is produced and appropriated. The physical conditions of the workplace – or, 'the material conditions under which factory labour is carried on' (p. 286) – are often characterized by 'unhealthiness and unpleasantness' (p. 170). Marx provides many examples, one of which is rag-picking: 'The rag-sorters are the medium for the spread of small-pox and other infectious diseases, and they themselves are the first victims' (p. 306). In some workplaces, 'Every organ of sense is injured in an equal degree by artificial elevation of the temperature [or lack of proper heating during cold weather], by the dust laden atmosphere, by the deafening noise [etc.]' (p. 286). With the increased use of machinery that reduces the necessity for the muscular power of male adults, child workers are used, and even *they* are exposed to unwholesome materials used in production. It does not matter that their ability to counter the unhealthy effects of these materials is limited.

Apart from the nature of the raw materials and so on used, there are other unhealthy aspects of the workplace. Lots of workers and means of production, including machines, are cramped into a small space in an enterprise without adequate ventilation and light to save investment on constant capital. 'Such economy [economizing] extends to *overcrowding close and unsanitary premises* with labourers, or, as capitalists put it, to space saving; to crowding *dangerous machinery* into close quarters' (italics added). In Marx's time,

The sanitary officers, the industrial inquiry commissioners, the factory inspectors, all harp, over and over again, upon the necessity for those 500 cubic feet [minimum necessary working space that doctors recommend], and upon the impossibility of wringing them out of capital. They thus, in fact, declare that consumption and other *lung diseases* among the workpeople are necessary conditions to the existence of capital. (p. 316; italics added)

Of course, in every form of society, there is a need to economize on the means of production. But in capitalism this economizing has a particular effect on workers' health:

Economy of the social means of production . . . is turned, in the hands of capital, into systematic robbery of what is necessary for the life of the [working people] while [they are] at work, *robbery of space, light, air, and of protection to his [or her] person against the dangerous and unwholesome accompaniments* [e.g. toxic raw materials] of the productive process. (p. 287; italics added)

Marx (2010a [1894]: 58) makes this point in *Capital Volume 3* too:

[Capital does not care about] protecting the life and limbs of labourers (among whom many children) against the dangers of handling and operating machinery. . . . It is [also] well known to what extent economy of space, and thus of buildings, crowds labourers into close quarters. In addition, there is also economy in means of ventilation. Coupled with the long working-hours, the two cause a large increase in diseases of the *respiratory organs, and an attendant increase* in the death-rate. (italics added)

Often 'the most miserable part of the labouring class', including 'half-starved' workers, are forced to work under these conditions (p. 170).

The cramped space of work with adverse effects on health thus has a logic: if the amount of space per workers and/or per unit of product is reduced, more profit is produced, other things constant. Marx (2010a [1894]) explains in *Capital Volume 3*:

In line with its contradictory and antagonistic nature, the capitalist mode of production proceeds to count the *prodigious dissipation of the labourer's life and health*, and the lowering of his [or her] living conditions, as an economy in the use of constant capital and thereby as a means of raising the rate of profit. (p. 55; italics added)

Bodily/Mental Exertion and Accidents

Measures in support of workers' health are often sought to be thwarted or neutralized by capitalists. For example, any reduction of the working day, due to government intervention (e.g. Factory Acts) undertaken partly under the pressure of the working class, is countered to some extent by the intensification of the labour process which speeds up bodily and mental exertion, so workers are made to produce as much, or more, in 8 hours than they would, say, in 14. This adversely affects workers' health. Based on the reports from the Factory inspectors, Marx says: 'the shortening of the hours of labour' forced upon the capitalist class by governmental legislation, calls forth 'such an intensification of the labour as is injurious to *the health of the workman* and to his capacity for work' (p. 283; italics added). The introduction of machinery as a response to the reduction in the working day 'does not free the labourer from work but deprives the work of all interest' (p. 286):

Besides the exertion of the bodily organs, the [capitalist labour] process demands that, during the whole operation, the workman's will be steadily in consonance with his [or her] purpose. This . . . [requires] close attention. The less he is attracted by the nature of the work. . . and the less, therefore, he enjoys it as something which gives play to his *bodily and mental powers*, the more close his [or her] attention is *forced to be*. (italics added)

There are potential mental health implications of the capitalist labour process: in capitalism, 'factory work exhausts the nervous system to the uttermost', and 'it does away with the many-sided play of the muscles, and confiscates every atom of freedom, both in bodily and intellectual activity'. Implicit in Marx's thinking is the idea that: because it is not easy to remain attentive while

performing un-pleasurable work, one commits mistakes, and this leads to accidents (injuries). So the capitalist labour process has injurious impacts on both physical and mental health of workers.

The main purpose of machinery is not to reduce bodily or mental exertion. It is rather to increase surplus value (in its relative form) by increasing workers' productivity per hour (and to break the resistance of the worker to exploitation and subordination in the workplace). Even if machinery can reduce toil, it may not be used to reduce it, because investing in a machine, under certain condition, can be more expensive than hiring people for long hours and/or low wages (for a detailed, though slightly critical, discussion of this argument of Marx, see Das, 2017: chapter 8). Marx provides an interesting empirical example:

The Yankees have invented a stonebreaking machine. The English do not make use of it, because the 'wretch' who does this work gets paid for such a small portion of his [or her] labour, that machinery would increase the cost of production to the capitalist. In England women are still occasionally used instead of horses for hauling canal boats, because the labour required to produce horses and machines is an accurately known quantity, while that required to maintain the women of the surplus-population is below all calculation. Hence nowhere do we find a more *shameful squandering of human labour-power* for the most despicable purposes than in England, the land of machinery.

Such *shameful squandering of human labour-power* has potential adverse implications for health.

Workers die, or fall ill, or become disabled, because of accidents (injuries) at work. One reason is the performance of un-pleasurable work, as just mentioned. There are other reasons.

Accidents happen because workplaces are cramped. Marx talks about 'danger to life and limb among the thickly crowded machinery, which, with the regularity of the seasons, issues its list of the *killed and wounded* in the industrial battle' (p. 286; italics added). Many accidents happen because workers lack adequate training. They include little children. During Marx's time, children used to experience accidents as they were forced to perform dangerous work: for example, they would creep 'under the mules to sweep the floor whilst the mules are in motion'.³ There is also a tendency in capitalism towards an increase in the speed of machines to increase output and profit. And this leads to accidents.⁴

A major reason for accidents at work is that capitalists often fail to pay adequate attention to safety rules, because doing so costs money and eats into profit. Workers are indeed subjected to the capitalist tendency towards:

crowding dangerous machinery into close quarters *without using safety devices; to neglecting safety rules in production processes pernicious to health, or, as in mining, bound up with danger*, etc. (Marx, 2010a [1894]: 55; italics added)

The 'disregard for safety measures to ensure the security, comfort, and health of labourers' results in 'the casualty lists containing *the wounded and killed* industrial workers' (p. 57; italics added).

When workers are maimed or become ill because of the neglect of the necessary safety measures, it is a loss to the capitalist class as a whole and indeed to society as such, but mutually competing individual capitalists do not care. Also, when workers are disabled due to accidents, they are less likely to be hired than those who are not and who are therefore the bearers of average amount of labour power.⁵ And with the reduced chance of employment, their income shrinks, and this affects their health.

Despotic Control

Workers' performance of labour is controlled by capital. The main aim of such control, like that of technical change, is to maximize their work effort and to minimize their resistance, which is likely in a situation where a large number of people work together [Marx, 2015 (1887): 231]. When many people work together in a place, their 'union into one single productive body and the establishment of a connexion between their individual functions. . . are not their own act, but the act of the capital that brings and keeps them together' (p. 231). Workers must work under 'the authority' of the capitalist, 'who subjects their activity to his [or her] aims' (p. 231). 'The control of the capitalist (over workers) . . . is despotic' (p. 231). Capital subjects workers to

a barrack discipline, which is elaborated into a complete system in the factory, and which fully develops the . . . labour of overlooking, thereby dividing the workpeople into operatives and overlookers, into private soldiers and sergeants of an industrial army. (p. 286; italics added)⁶

There must be definite implications of the barrack discipline and of the regime of despotic control in the workplace for mental health of workers, although Marx fails to explicitly explore this. It cannot be fun working when there is a constant danger of someone looking over one's shoulder. It is also through the despotic control that during the working day, capital seeks to fill all potential pores by making workers work every single minute. Capital 'steals the time required for the consumption of *fresh air and sunlight*. It higgles over a meal-time' thus it does not allow people to eat their meals peacefully.

On the whole, in the workplace, most workers have little control over the conditions of their work.

Every kind of capitalist production . . . has this in common, that it is not the workman that employs the instruments of labour, but the instruments of labour that employ the workman. (p. 286)

This lack of control – the alienation from the conditions of work – must have some impact on workers' mental and physical health. In particular, to the extent that a strict labour control regime weakens the potential for resistance, this must be contributing to a sense of helplessness and in turn must have an effect on mental health.

Environment

Labour – labouring body – is a part of nature. This is true in all societies. In capitalism, the incessant pursuit of wealth in its abstract form and for its sake adversely affects nature and thus the human body. The circulation between nature and society is disturbed, as the profit-driven system dominated by private capital upsets 'the naturally grown conditions for the maintenance of that circulation of matter'.

More is taken out of nature than is put into it, leading to decline in natural fertility.⁷ One specific illustration of this mechanism is the capitalist urbanization that delinks the city from the village.

Capitalist production, by collecting the population in great centres, and causing an ever-increasing preponderance of town population . . . disturbs the circulation of matter between man and the soil, i.e., prevents the return to the soil of its elements consumed by man in the form of food and clothing; it therefore violates the conditions necessary to lasting fertility of the soil. By this action it destroys at the same time the *health of the town* labourer and the intellectual life of the rural labourer.

This process, called metabolic rift by Foster and others (Foster and Burkett, 2016), has implications for the health of common people, as workers and as consumers. Reduced fertility requires increased use of chemicals in food production. So, not only do people in the cities (and in villages) depend on chemicalized food, which ruins health. They also live in overcrowded urban neighbourhoods. Living in overcrowded areas is a major cause of the spread of infectious diseases and for other health conditions.

Towards a Class Dimensions of Health Approach

Marx's thinking about workers' health can now be seen as a part of a growing literature on what is called the social determinants (or social dimensions) of health (SDH) (Marmot and Wilkinson, 2005). The SDH have been rightly emphasized by not only scholars but also by governmental and international agencies, including: the Office of Disease Prevention and Health Promotion (ODPHP) of the Government of the United States of America (2020), the Government of Canada (2020), as well as World Health Organization (WHO), and Commission on Social Determinants of Health (2008) According to the US government, SDH include: economic stability, education access and quality, healthcare access and quality, neighbourhood and built environment, and social and community context. The Government of Canada (2020), considered to play a more progressive role in promoting health than the US government, is more direct. It says:

Social determinants of health refer to a specific group of social and economic factors within the broader determinants of health. These relate to an individual's place in society, such as income, education or employment. Experiences of discrimination, racism and historical trauma are important social determinants of health for certain groups such as Indigenous Peoples, LGBTQ and Black Canadians.

So, there is a global consensus that good health is promoted by: adequate income, educational opportunities, access to nutritious food, safe drinking water, safe housing, transit, and neighbourhoods, economic equality, freedom from discrimination and violence, and so on. Recognizing the fact that the matter of health is not a purely biological phenomenon that can be addressed by pills, vaccines, hospitals and so on and that it has social dimensions, is admirable. But there is a need for a more critical perspective on SDH themselves. The policy-based and academic literature on SDH tends to ignore, or under-stress, the importance of the capitalist character of the political-economic system. It is not enough to say that health has many (disparate) social dimensions. There is an urgent need to talk about what can be called *Class Dimensions of Health*. The class character of the social in the discussion on the SDH – the capitalist 'social', that is – has to be at the centre of the discussion. But often it is not. In an Opinion piece in *British Medical Journal*, Freudenberg (2021b), a distinguished professor of public health at the City University of New York, writes:

Mounting evidence suggests that key features of 21st century capitalism add to the global burden of disease . . . within and among nations. . . . Despite these links between dominant political and economic structures and health, health professionals are often reluctant to use the word capitalism when analyzing the world's current health problems and proposing solutions.

The silence about the capitalism-health connection is evident in the recent discussions on the Covid pandemic, for example: racial discrimination is rightly seen as having an impact on suffering which is why African Americans have been disproportionately hit by the pandemic, but the overarching role of class/capitalism is, ignored or under-stressed (Aspholm, 2020).

There *are* scholars who are developing a critical perspective on health (Raphael et al., 2019). Some of them do talk about the relation between capitalism in health. But they say that capitalism is a major *societal* determinant influencing health (Flynn, 2021; Navarro, 2009). Strictly speaking, this is not entirely correct either: the full power of capitalism to produce adverse health outcomes is not yet taken into account (I will return to this below). Some of these scholars also talk about how different ‘classes’ (e.g. larger employers, smaller employers, managers, supervisors and ordinary workers) experience different health outcomes (Muntaner et al., 2015). This is definitely an improvement over the approaches where health outcomes are correlated with individual-level attributes such as income. But what is also necessary is a need to build on, and go beyond, ‘quantitative Marxism’, to uncover the social relations of capitalism behind the unequal distribution of health outcomes across different strata.

Health is not Marx’s *focus* in *Capital Volume 1*, so one cannot expect him to talk about this adequately. Yet, as we have seen, he does provide many insights into workers’ health. To the extent that he *does* talk about health, there is a problem with his approach too: it is a relatively ‘narrow’ approach. Marx would not disagree.⁸ It is narrow because of his conscious concentration on how the dynamics of employment/unemployment and wages, and of capitalist production as such affect workers’ health. His approach, more or less, abstracts from other social determinants that the recent critical perspectives on health literature has dealt with such as: bad living conditions in neighbourhoods, corporate production of food and medicine, and inadequate government investment in healthcare (Braverman et al., 2011). What is required is not merely critical perspectives on health that include discussions on SDH. What is required is a broader political economic – or class-based – approach to SDH. In the remainder of this section, I will only *indicate* what that approach might look like.

First of all, such an approach must be informed by a stratified ontology that Marx advocates in *Grundrisse*, where the concrete must be seen as ‘the concentration of many determinations, hence unity of the diverse’ (Marx, 1973 [1857]), and where the ‘many determinations’ exist at multiple *levels* (of abstraction). This means that: concrete *outcomes* are *produced* as *effects* of *mechanisms* which exist by virtue of underlying *social relations* (Marx, 1973 [1857]; Sayer, 1992). Accordingly, if health is a concrete aspect of the multi-layer reality of life/society, then its social determinants must be seen as existing at different levels, some of which are more abstract/general (i.e. one-sided) than other levels. At a more concrete level, the SDH include the processes just mentioned, the processes that the existing SDH literature has rightly emphasized (e.g. adequate income and significant economic equality). But these concrete determinants are to be seen as being determined, in turn, by more general determinants, that is, by capitalist social relations and mechanisms (i.e. capitalist economic and political system, including capitalist production/accumulation, and state policies).⁹ These determinants are, more or less, *internal* aspects of capitalist society in the sense that such a society cannot exist without these relations and mechanisms. So, capitalism is not a social determinant. Capitalism is too powerful a structure to be just *one* of many determinants. Nor are the SDH only those that are based in the realm of production (that Marx’s approach in *Capital* might suggest) because, as he himself would say, health is too concrete an aspect of reality for such a ‘reduction’ to work.

Moving from method to political economy, one can say that Marx’s broader approach to health is actually implicit in his *Capital Volume 1*. This is indicated by his comment that: ‘Accumulation of wealth at one pole is. . . at the same time accumulation of *misery, agony of toil, slavery, ignorance, brutality, mental degradation*, at the opposite pole’ (Marx, 2015 [1887]: 451).¹⁰ Embedded in this insightful remark are two main elements of his broader approach, the elements that he does pay explicit attention to, as we have discussed: (a) capitalist *social relations* give rise to the *mechanisms* of the organization of work, production and accumulation of value (e.g. commodification of

necessaries; reliance on wage-work; insecure employment; exploitation; capitalist competition), which, in turn, produce (b) certain *effects* on workers (e.g. inadequate income due to low wages and/or insecure employment; unsafe physical conditions in the workplace; long hours of work). These effects of capitalist social relations and mechanisms, in turn, produce adverse impacts on workers' health. In terms of health then, there is a hierarchy of concepts: social relations (of capitalism) → mechanisms → effects on workers → effects on workers' health.

It bears repetition that Marx's broader approach to health includes his 'narrow' approach contained in *Capital Volume 1*, where his emphasis is on how capitalist mode of production affects workers' health. And the latter is actually supported by the recent work which examines, for example, how it is that 'The physical aspects of work – the traditional domain of occupational health and safety – represent [a] . . . pathway through which work influences health' (Braverman et al., 2011: 385–387). Recent research also suggests that: working overtime has been associated with injury, illness, and mortality, and that many people who do not earn enough to cover basic necessities (the working poor) are less likely to have health-related benefits (Braverman et al., 2011; Collins et al., 2004).

Embedded in Marx's comment on the two poles of capitalism, which is indicative of Marx's broad approach to health, is the view that economic inequality and attendant economic deprivation are a major cause of ill-health. According to Marx, workers produce wealth for capitalists, but they do not enjoy much of that wealth to meet their needs. Resources (in the form of means of production and means of subsistence) do exist in society for people to enjoy good health. But they do not exist under the control of workers for them to democratically and rationally use them to meet their health and other needs. This lack of control over resources partly explains workers' ill-health. Consider Marx's comment on famine and starvation, and on 'the conditions of nourishment of the distressed operatives [workers]'.¹¹ Interestingly, according to the Food and Agricultural Organization, 'Malnutrition is the single largest contributor to disease in the world' (Food Agriculture Organization (FAO), 2022). Famine and starvation and their impacts on health in a country cannot be reduced to the relationships around work. The relation between inequality and health is something that modern-day radical and Marxist scholarship has shed light on.

The state is central to Marx's social theory and political economy (Das, 2022a). In the general interest of the capitalist class and because of popular pressure from below, the state does introduce policies to help common people but there are strong limits to what the state can do because of its class and capitalist character (Das, 2022a; Marx, 2015 [1887]). The state's class character has adverse implications for workers' health. The withdrawal of state intervention from the health-sector, including the privatization of the public sector provisioning of healthcare, and state-led promotion and subsidization of corporatization and monopolization in the health-industry (consider the big vaccine/drug companies) cannot but have adverse effects on health. Similarly, state's pro-corporate priorities (e.g. military industrial complex; corporate welfare) reduce its ability to improve the health conditions, even if a healthy workforce is in the long-term interest of the capitalist class as a whole. So a critical examination of what the state can and cannot do to improve health is an important task.

In Marx's social theory, 'social relations' matter: what one individual does or what one process is are shaped by their relations with other individuals and processes. And an attribute of social relations is antagonism. This idea about social relations is relevant to health. A specific implication of this idea, I would argue, is that alienation matters, although Marx does not explore the connection. Alienation is experienced when common people, as opposed to capitalists, do not have control over the means of production, how productive work happens (one works under the despotic control by the capitalists, for example), and the wealth (value) produced, and consequently one is separated from fellow human beings with whom there is a relation based on competition, not solidarity

(Marx, 1844; Musto, 2010; Ollman, 1976; Sayers, 2011). If health is impacted by social conditions, then alienation must have an impact on health, and especially, mental health (Bramel and Friend, 1982; Crinson and Yuill, 2008; Oversveen, 2021; Yuill, 2005). Modern neuro-science says that cultivation of loving-kindness and generosity towards fellow-human beings promotes physical and mental health (Davidson, 2019; Davidson and Begley, 2012). But the neuro-scientists, given their emphasis on individuals, hardly think about how capitalism as a structure of social relations promotes alienation from fellow human beings and is therefore clearly unhealthy. The detailed theoretical and empirical study of the health impact of alienation in capitalist society is an urgent task. There is indeed a need to link two literatures more adequately than has been done: the alienation literature and the SDH literature.

There are also relevant social relations outside of work/production, including in the family. For example, one implication of overwork is that, once again to quote Marx (2015 [1887]), there is no time ‘for the fulfilling of social functions and for social intercourse’ (pp. 178–179). Marx is here hinting at the importance of social intercourse for good health. Recent research also suggests that lack of nourishing relations can have adverse impact on health (Umberson and Montez, 2010). There is also the fact that families as large social aggregates of closely-linked people, which could provide a limited basis for solidarity, are weakening or collapsing, without an alternative social site (e.g. a commune) taking its place.¹² The family as an institution, which, before capitalism (and, to some extent, in the early stage of capitalism), used to be an ‘extra-economic’ realm, one that is beyond the considerations of cash nexus and competition, has indeed been changing: ‘The bourgeoisie has torn away from the family its sentimental veil and has reduced the family relation to a mere money relation’ (Marx and Engels, 1848: 16). The gradual collapse of large-scale families (e.g. extended families) cannot but have an adverse impact on people’s health. Family interactions have allowed people to share their struggles and sorrows, and have thus provided psycho-analytic assistance. Big families have been a site for the care of the ill (of course, this has happened at the expense of unpaid women’s labour). Marx also stresses the importance of care for children inside the family (although he assumes – mistakenly – that this caring work has to be formed by mothers).¹³ This means that the capitalist processes that stop children from being properly cared for will affect their physical and mental health.

Marx does not ignore racial and gender oppression in his analysis of society, but he does not write about this in a systematic and detailed manner (Das, 2022b). To the extent that he does, he does not explore the implication of gender or racial inequality in capitalism for health. In terms of gender relations, he generally abstracts from the burden of women and children’s reproductive work in relation to their health, including in his work on women (Brown, 2012). He also abstracts from how certain racial groups might suffer disproportionately from illnesses. To enrich Marx’s thinking in a way that is in line with his overall social theory and political economy, it must be said that: the effects of the social relations and mechanisms of capitalism on workers’ health are *mediated* by special oppression, i.e. by discrimination on the basis of such relations as gender, race, ethnicity and religion, the discrimination that also contributes to the reproduction of capitalism (Das, 2022b). Marx would not disagree. While capitalism produces bad health for all workers, the specially oppressed workers may suffer disproportionately, so one needs to relate the health experience of the oppressed in relation to capitalist exploitation and subjugation. As Aspholm (2020) says in his discussion on the on-going pandemic in America in relation to race and capitalism:

racial disparities cannot be divorced from an analysis of our fragmented, profit-oriented health insurance industry; the hollowing out of the public health care sector; a woefully inadequate residual-model welfare state; and eroding unionism, diminishing protections, and increasing precarity for working people.

Implicit in Marx's theory is also a theory of discrimination against people with disability (Das, 2022b). In his value theory, 'The labour objectified in value [of commodities] is labour of an average social quality, it is an expression of average labour-power' (Marx, 2015 [1887]: 227). This means that an impaired/disabled worker's labour does not count as average labour, which is the stuff of value. Either an impaired worker is not employed or is under-employed, and when employed they may not receive the average wage thus reducing their income which will have adverse implications on their health. There is an additional aspect that Marx seems to ignore, and which recent scholarship has shed light on (Slorach, 2011). Those workers who have a degree of physical and mental disability are subjected to discrimination from the 'employers wishing to avoid paying the additional costs of hiring a disabled worker, whether in the form of workstation adaptations, interpreters, readers, environmental modifications or liability insurance' (Slorach, 2011).

Finally, workers' agency is a part of Marx's broader approach to health, because it is an important part of his overall social theory and political economy. Capitalism is what it is, not only because what capitalists do but also because what workers do or can do (they can and do fight). Capitalism is unhealthy, according to him. Capitalist production of unhealthy bodies is a part of capitalism's infliction of violence on the labouring bodies (Das, 2018). However, workers' health is not entirely a function of capitalists' needs. Workers are sufferers. They are also fighters. Their struggles for good health matter. Men and women demand good health because it is in their own interest. There are at least three practical implications of Marx's thinking about health in relation to workers' agency.

First, if information/knowledge is power, then workers must demand that governments should collect social statistics on health (and other aspects of wellbeing). Governments should periodically establish 'commissions of inquiry into economic conditions' including 'into the exploitation of women and children' and 'into housing and food' (Marx, 2015 [1887]: 7). These commissions should be 'armed with the same plenary powers to get at the truth' concerning people's quality of life. The governments should 'find for this purpose' people who are 'competent' and who are 'as free from partisanship and respect of persons as are the English factory-inspectors' (p. 7) and whose work is properly funded.¹⁴

Second, while 'the natural tendency of capitalist exploitation' (p. 57) hurts workers' health, workers must demand well-funded countermeasures in the form of government policies in order to, at least, weaken the effects of this tendency, and thus to enhance workers' health status, to some extent. Marx does recognize that 'The protection afforded by the Factory Acts against dangerous machinery has had a beneficial effect' (p. 343). He talks about the 'fact that the number of accidents, though still very high, has decreased markedly since the inspection system was established' in the English context of his time (p. 57).¹⁵

Third, workers have to fight for the measures that ensure good health by improving the social dimensions of health such as wage and employment. Historically speaking, when it comes to pro-worker measures of any type, 'Their formulation. . . and proclamation by the State, were the result of a long struggle of classes' (p. 187). This view applies to contemporary times too.¹⁶

Marx (2010b: 327–328) was indeed critical of what he called 'indifferentism': he was critical of those who would say that 'Workers must not go on strike; for to struggle to increase one's wages or to prevent their decrease is like recognizing wages', or that 'Workers must not struggle to establish a legal limit to the working day, because this is to compromise with the masters, who can then only exploit them for ten or twelve hours, instead of fourteen or sixteen' or that 'They must not even exert themselves in order legally to prohibit the employment in factories of children under the age of ten, because by such means they do not bring to an end the exploitation of children over ten', and so on.

For Marx, the fight for concessions matters. One reason is that under certain conditions, the state is *forced to* give limited concessions (Das, 2022a). Note that a healthy workforce is in the long-term interests of the capitalist class as a whole. And, from the standpoint of reproducing the legitimacy of the system, it is not good politics on the part of the state to entirely and always ignore class struggle from below. But one cannot assume that the capitalist state will automatically introduce the measures in the interest of workers' health, and that if it does, it will automatically implement the measures fully.¹⁷ Marx would say that workers should fight for (a) the commissions of enquiry into health, housing, food and so on to draw attention to their suffering and (b) the measures to improve their health conditions. Of course, Marx would say that until wage-labour itself is abolished and until workers democratically control the production process and use them to meet their own needs in an ecologically sustainable way, workers' health would suffer.¹⁸ He is correct.

Conclusion

Marx's discussion on the political economy of health centres on wage-labour and production of value. If a worker will not produce surplus value, they are not needed or hired by capital, so they are denied access to the required means of subsistence, including food and healthcare. Even if they are hired, they may not receive an adequate compensation. If one does not have adequate income from wage-work because of low wages and/or under- or un-employment, one does not have the money to meet basic needs such as health, other things constant. Besides, bad working conditions and a harmful physical environment produced by capitalism can ruin health too. Clearly, health is an important part of the value of labour power and of the process of the production of value. Therefore, health is an important part of Marx's political economy and indeed of his class theory as such (Das, 2017).

However, Marx's approach to health that is a part of his theory of capitalist *production* in *Capital Volume 1*, is narrowly based. His approach abstracts from the processes that are beyond the workplace, or the hidden about of production of value and surplus value. Yet, his overall social theory including a stratified ontology and a focus on the importance of social relations, as well as his political economy of capitalism, point to a much broader approach to workers' health. Such an approach is only implicit in his thinking. This broader Marxist approach to health – an approach that puts the emphasis on the class dimensions of health that are based in, and that are also outside of, capitalist commodity production – needs to be uncovered and developed. This paper has only *indicated* how this can be done. Such a task is necessary not only to understand the SDH better but also to produce the knowledge that is necessary to promote a political movement of common people for better health.

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Notes

1. Henceforth, all references to Marx are to Marx's *Capital Volume 1* (Marx, 2015 [1887]), unless otherwise noted.
2. I abstract from other sources of income such as self-employment and state benefits.
3. Similar instances are seen in today's agriculture in the South.

4. Marx quotes a report: 'Wheels, rollers, spindles and shuttles are now propelled at increased and increasing rates; fingers must be quicker and defter in their movements to take up the broken thread, for, if placed with hesitation or carelessness, they are sacrificed' (p. 343).
5. Marx quotes a report:

I have heard some mill-owners speak with inexcusable levity of some of the accidents. . . . When I have heard such inconsiderate remarks made, I have usually put this question: Suppose you were in want of an additional workman, and two were to apply, both equally well qualified in other respects, but one had lost a thumb or a forefinger, which would you engage? There never was a hesitation as to the answer . . . (p. 342).
6. See the classic work on labour control by Michael Burawoy (1985).
7. The capitalist farmer 'snatches increased produce from the soil by robbing it of its fertility' (p. 179).
8. In the Preface to the First German Edition of *Capital Volume 1*, Marx [2015 (1887): 8] says: 'Every opinion based on scientific criticism I welcome'.
9. One can see capitalism itself as existing at different levels: social relations, mechanisms and effects (see below).
10. 'If the working class has remained "poor," only "less poor" in proportion as it produces for the wealthy . . . [a lot of wealth] then it has remained relatively just as poor' (p. 455). This means that along with income inequality, there will be health inequality.
11. 'The Irish famine of 1846 killed more than 1,000,000 people, but it killed poor devils only' (p. 486)

'In the year 1866 more than a million Hindus died of hunger in the province of Orissa [India] alone. Nevertheless, the attempt was made to enrich the Indian treasury by the price at which the necessities of life were sold to the starving people' (p. 539).
12. This is happening thanks to various factors connected to the capitalist system: petty bourgeois egoistic attitude, nasty inter-personal conflicts and intra-family intrigues due to scarcity of resources as well as unequal earnings and contribution to reproductive labour of different members relative to their needs and so on. Given that most workers (and also small-scale producers receive less than what they need for a decent living, 'the struggle for necessities and all the old filthy business' occurs
13. The 1998 Hollywood movie, *Stepmom*, directed by Chris Columbus, draws attention to the supreme importance of parental care-work for children's lives.
14. It would be ultra-leftism to deny this.
15. Stuckler and Basu (2013), using data from around the globe, show how government policy becomes a matter of life and death during financial crises.
16. Greer (2018) says that the disappointing public health performance of the United States can be related to its low and declining unionization.
17. Marx always makes a distinction between the introduction of pro-worker measures and their actual implementation and says that there are capitalist-inflicted structural and political obstacles at each of these two stages, which is why the actual benefits received by workers are limited.
18. While the fight for concessions ("progressive health policy reforms") matters, the fight for incremental change can reproduce the material conditions that make people unhealthy in the first place, so there is a need to 'adopt a more critical, bottom-up perspective towards how policy changes affecting the public's health are ultimately achieved' and to study people's struggle for access to resources for achieving good health (Muntaner et al., 2015: 280).

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