

Engels, “Dialectics of Nature”, and the Covid 19 pandemic*

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1. The Covid 19 pandemic rages all over the world spreading devastation. Up to now, late November 2020, there are more than 50 million infected and more than 1.3 million deaths. The world economy, after twelve years of an unprecedented global crisis, is now plunging into an abyss as the actual life process of human society is under mortal danger.

It is not simply a sudden natural disaster, without any human interference, like the asteroid that according to scientists came from outer space, hit Earth, and eliminated all the dinosaurs. And, of course, it is neither a “sinister conspiracy” as reactionary obscurantist circles claim nor an arbitrary political-social construct by authoritarian powers to impose a “permanent state of exception”.

Research by epidemiologists, such as Pr. Robert Wallace and his team, brought forward what they have called “Structural One World-One Health Approach” revealing the structural causes of an “epidemic of epidemics”, increasingly lethal, during the last four decades of capitalist globalization. They brought evidence for the role played by the aggressive expansion of agribusiness, deforestation, anarchic urbanization, breakdown of ecosystems, and immunological barriers, leading to the development of *zoonoses* by the transmission of viruses from animals to humans.¹

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1 See Rob Wallace, Alex Liebman, Luis, Fernando Chaves, and Rodrick Wallace, “Covid 19 and Circuits of Capital”, *Monthly Review*, May 1, 2020, and John Bellamy Foster, Intan Suwandi, “Covid 19 and Catastrophe Capitalism”, *Monthly Review*, June 1, 2020.

Using the words of Friedrich Engels, in his *Dialectics of Nature*, we could say that *Nature takes its revenge*:

Let us not, however flatter ourselves over much on account of our human victories over nature. For each such victory nature takes its revenge on us. Each victory, it is true, in the first place brings about the results we expected, but in the second and third places it has quite different, unforeseen effects, which only too often cancel the first.²

The recent pandemic, in its own destructive way, reveals again the *centrality* of the historically developing interrelation, interpenetration, and interaction between nature and human society -what Marx, in his *Capital*, calls “*Stoffwechsel*”³ - “metabolism between Man and Nature”. Objectively, as a tragic manifestation of Hegel’s “cunning of History”, it confirms the basis of historical materialist dialectics of Marx and Engels.

2. John Bellamy Foster, based on Marx’s concept of social metabolism, particularly as it is developed by the Hungarian Marxist István Mészáros, taking attention to Marx’s remarks on the impact of capitalism on earth, in *Grundrisse* and Vol. III of *Capital*, has refuted accusations raised against Marx and Engels for “productivism”, “Promethean neglect of nature”, and “indifference towards ecological concerns”. Together with other authors around *Monthly Review*, John Bellamy Foster elaborated a Marxist-ecological approach to the destruction of the natural environment by capitalism, introducing the concept of “metabolic rift” between Nature and capitalist organization of society, quite relevant to their view, to understand also the current deadly Covid 19 pandemic.⁴

Taking distances from other trends of “Eco-socialism” more or less hostile to Marxism, this path-breaking work renewed interest in a Marxist investigation of the intensifying ecological crisis based on the centrality of Marx’s concept of natural-social metabolism. At the same time, new issues have risen. Although baseless accusations against Marx were repelled, the never-dying tendency to counterpose Marx to Engels reappeared this time too.

Kohei Saito, for example, (from the Graduate School of Economics, Osaka City University), who won the Deutscher Memorial Prize in 2018 for his book *Karl Marx’s Ecosocialism*,⁵ in his thought-provoking Memorial Lecture, he criticizes as one of

2 F. Engels, *Dialectics of Nature*, Progress, 1974, p. 180.

3 Karl Marx, *Das Kapital*, Erster Band, Marx-Engels Werke Band 23, Institut für Marxismus Lenismus beim ZK der SED, Dietz Verlag Berlin 1972 p. 192. In English, see *Capital* vol 1, Moscow: Progress Publishers, 1986, p. 173.

4 See, John Bellamy Foster, *Marx’s Ecology: Materialism and Nature*, Monthly Review Press, 2000, John Bellamy Foster and Paul Burkett, *Marx and the Earth: An Anti-Critique*, Monthly Review Press, 2016, John Bellamy Foster and Intan Suwandi, “Covid-19 and Catastrophe Capitalism”, *Monthly Review*, June 1, 2020.

5 Kohei Saito, *Karl Marx’s Ecosocialism*, Monthly Review Press, 2017.

the main reasons for the neglect of “Marx’s ecological critique of capitalism” what he calls “traditional Marxism”, and ... his “founder Friedrich Engels”, particularly because of his work on natural sciences in *Anti-Dühring* and *Dialectics of Nature*.⁶

Saito has expressed the view, in his book as well as in an article in 2019⁷ and in the memorial Lecture that while “Engels mainly dealt with the sphere of natural sciences from a metaphysical and encyclopedic perspective, Marx’s own ecological interest in the natural sciences was not properly understood in relation to his critique of political economy”.⁸ Consequently, Engels, his so-called “mechanistic dialectic of Nature” and “traditional Marxism” are considered as responsible for the fact that Lukács, Korsh, the Western Marxists, and others “excluded the sphere of nature and natural sciences from Marxism” together with the necessity to include ecology into Marxist analysis.⁹

The theoretical and political implications are enormous in an “Age of Global Ecological Crisis” when humanity confronts climate change, “catastrophe capitalism” (John Bellamy Foster et al.), an “epidemic of epidemics” including the Covid 19 pandemic.

3. The old, perennial accusation addressed to Engels to be an incorrigible “positivist” and crude “metaphysician” imposing mechanically the laws of dialectics upon the objective material world is incompatible with a close reading of the work of the closest friend and collaborator of Karl Marx, in its overall context.

Engels himself, in his notes on the *Dialectics of Nature*, reading carefully Hegel’s *Science of Logic*, its connection with and its distinction from Marx’s dialectical method, sharply attacks the constant idealist error to impose dialectical schemata on nature and society: “The mistake lies in the fact that these laws are foisted on nature and history as laws of thought, and not deduced from them. This is the source of the whole forced and often outrageous treatment: the universe, willy-nilly, has to conform to a system of thought which itself is only the product of a definite stage of evolution of human thought”.¹⁰

As a consistent materialist, Engels insists on the *primacy* and *independence* of the external material world in relation to human social and individual consciousness and thought, on their *historical* development and interrelation as well as on the *unity* between nature and human society in history, against any *dualism*. *He recognizes that* with the advance of natural sciences in the 19th century and of social productive activities “... the more this progresses the more will men not only feel but also know

6 Kohei Saito, “Marx’s Theory of Metabolism in the Age of Global Ecological Crisis”, *Historical Materialism* 28.2 (2020), see particularly pp. 7-10.

7 Kohei Saito, *Marx and Engels: The Intellectual Relationship Revisited from an Ecological Perspective in Marx’s Capital after 150 Years: Critique and Alternative to Capitalism*, ed. by Marcello Musto, Routledge, 2019.

8 Kohei Saito, Deutscher Memorial Lecture op. cit., pp. 8-9.

9 op. cit., pp. 9-10.

10 Engels, *Dialectics of Nature*, op. cit., p. 62.

their oneness with nature, and the more impossible will become the senseless and unnatural idea of a contrast between mind and matter, man and nature, soul and body ...”¹¹

This “oneness with nature” should be understood in Spinoza’s conception of Nature, of *substance* and its *attributes*, extension and thought, not in any mechanical reductionist sense. The great, non-dogmatic Soviet philosopher Evald Vassilievitch Ilyenkov has rightly insisted on the *Spinoza moment* in the development of Marxist dialectics by disclosing the “mode of interaction within nature [...] of this ‘infinite’ interaction. Substance thus proved to be an absolutely necessary condition, without assuming which it was impossible in principle to understand the mode of interaction between the thinking body and the world within which it operated as thinking body”.¹² In other, Marx’s and Mészáros’s words, to understand *social metabolism*.

It is not an accident, as Ilyenkov again notes, that Spinoza is the scourge of all positivists from the 19th-century onwards.

The cultural atmosphere of the *Zeitgeist* around Engels, nurtured by the advances of natural sciences, was indeed permeated by positivism and mechanical materialist reductionism. The frequent use by Engels of many examples from the findings of natural sciences to describe laws of dialectic it is “in the interests of popularization”, as Lenin critically remarks; but it is insufficient or even an obstacle to grasp a dialectical law as “**a law of cognition** (and as a law of the objective world)”.¹³

Both Engels and Lenin followed with great interest the rapid development of natural sciences. Lenin, in his *Materialism and Empirio-criticism*, which also was accused to be one of the pillars of “mechanical”, “traditional Marxism”, speaks about “the recent revolution in natural science”,¹⁴ at the beginning of the 20th century, “the crisis in modern physics”,¹⁵ in relation to the break up of the old mechanical world picture. He fights the turn to idealism as a side effect of this crisis and revolution, without rejecting its enormous importance for dialectical materialism. He quotes approvingly the statement by Engels in *Ludwig Feuerbach and the End of Classical German Philosophy* that “with each epoch-making discovery even in the sphere of natural science [“not to speak of the history of mankind”] materialism has to change its form. Hence, a revision of the ‘form’ of Engels’ materialism, a revision of his natural-philosophical propositions is not only not ‘revisionism’, in the accepted meaning of the term, but on the contrary, is an essential requirement of Marxism”.¹⁶ On this non-dogmatic basis of a permanent revolution in the form of dialectical

11. op. cit., p. 181.

12 E.V. Ilyenkov, *Dialectical Logic*, Moscow: Progress, 1977, p. 60.

13 V.I. Lenin, *On the Question of Dialectics* in *Philosophical Notebooks*, Collected Works vol. 38, Progress, 1972, p. 359.

14 V.I. Lenin, *Materialism and Empirio-criticism*, Collected Works vol.14, Moscow: Progress, 1977, p. 250.

15 op. cit., p. 252.

16 op. cit., p. 251.

materialism, Lenin called for its “alliance with natural science”.

Ilyenkov read in a non-conventional way *Materialism and Empiriocriticism* both against the metaphysics of positivism and against the ossification of Lenin’s work by the Stalinist textbooks of “diamat”, not by a so-called “traditional Marxism”. He explained that the above mentioned “alliance” is incompatible with any convenient “sum of examples”: “...the transformation of materialist philosophy (of dialectics) into a ‘sum of examples’ contradicts the interests of such an alliance and, as the saying goes, ‘adds grist to the mill’ of positivism. The alliance of philosophy with natural science, according to the way Lenin thought, can be enduring and voluntary only if it is mutually productive and if it mutually excludes any attempt to dictate or force any ready-made conclusions, both on the part of philosophy and on the part of natural science”.¹⁷ An alliance which is light years away from any “metaphysical”, “mechanical”, “traditional (so-called) Marxism” or Zhdanovism...

In contradistinction from all those rejecting the “father of traditional Marxism”, Ernst Bloch, the great Marxist philosopher of Hope, although criticizing the scientific materials in Engels’s *Dialectics of Nature* to be “outdated” not only now but some of them even in Engels’s time, nevertheless, he argues that this work offers a “modern and fruitful perspective for rethinking materialism in a **non mechanistic way**”.¹⁸

“Dialectical materialism”, Lev Davidovitch Trotsky writes in his *Philosophical Notebooks* of 1933-1935 “it is not an arbitrary gluing of two independent terms but a self-differentiated unity”.¹⁹ Any separation of *objective* dialectics of natural-historical world from *subjective* dialectics of cognition leads inescapably to mechanical and idealist *dualism*. But also any elimination of *difference* within their *unity*, any reduction of this differentiated unity into abstract *identity*, any reductionist fusion of subjective to the objective, of a *specific* dialectics of nature to a specific, historically developed dialectics of human society and, then of human cognition leads to the twin idealist impasse of “objectivism” and/or subjectivism: “As cognition is not identical with the world (despite Hegel’s idealist axiom), dialectics of cognition is not identical to dialectics of nature [...] Subjective dialectics, consequently, should also to be presented as a specific part of objective dialectics- with its specific forms and laws”.²⁰

4. These philosophical-methodological considerations acquire a new actuality in a broader theoretical approach to the Covid 19 pandemic.

One-sided, distorting views, politically biased as under Donald Trump, often

17 E.V. Ilyenkov, *Leninist Dialectics and the Metaphysics of Positivism*, New Park Publications, 1982, p. 135.

18 Ernst Bloch, *Das Materialismusproblem, seine Geschichte und Substanz*, Suhrkamp, 1972, p. 359, our emphasis.

19 L.D. Trotsky, *Philosophical Notebooks 1933-1935*, Harvard University Press, 1986, pp. 140-141.

20 op. cit., p. 145.

openly irrational and obscurantist, in other cases with a sophisticated “radical” form *à la* Giorgio Agamben, are presenting the pandemic of SARS-Cov-2 or Covid 19 as “a just another flue” manipulated by sinister forces conspiring to establish their control through a permanent “state of exception”. They insist up to now despite the huge number of deaths and human devastation reaching the intensity of an anthropological crisis.

On the opposite side of governments and parties, equally one-sided, also politically biased claims, are propagated pretending that the pandemic is just “an inescapable, purely natural disaster”. They are covering the social roots of the pandemic and its criminal mismanagement by capitalist governments seeking not to protect primarily human lives but to save capitalist profit and the system based on it. Decades of neo-liberal policies have destroyed public health services for the people. Now, either by imposing successive unsuccessful lock-downs, keeping the so-called “essential” labor activities under the most unhealthy conditions, or by “reactivating economic activities” after each wave of the pandemic, the situation for the population deteriorates in every aspect, waiting for salvation by the vaccine, an object of ferocious competition by the big capitalist pharmaceutical companies looking for a bonanza of profits.

The logic of capital has its own specificity but it is not identical with the logic of biological natural processes. The specificity of the law of the falling tendency of the rate of profit has nothing to do with the specificity, for example, of the hundreds of different proteins in the “spikes” of the coronavirus, having a different, lethal or non-lethal, effect on infected persons.

The question is not to reduce one specific logic to the other. It is, as Engels put it in *Dialectics of Nature*, to investigate “**interconnections** in general, and **transitions** from one field of investigation to another”.²¹

Marxist ecologists like Mike Davis or epidemiologists like Robert Wallace or John Bellamy Foster and the *Monthly Review* school of thought did have traced such crucial interconnections and transitions.

The problem with some versions of the “metabolic rift” concept, pointed out by some critics as well, is that it tends towards a kind of “Cartesian dualism” by focusing on the growing gap separating nature from society. This dualism is more pronounced when the “metabolic rift” is seen only from the standpoint of the devastating effects of the specific logic of capitalist development on the natural environment and not as well from the specific logic of the “revenge of Nature” determined by the dialectical logic of the natural world mentioned by Engels, precisely in *Dialectics of Nature*. If this later specific dialectics is ignored or rejected then the rift becomes a gulf separating two independent entities. Thus, a pandemic like that of the Covid 19 is reduced into an “externality”, precisely as mainstream bourgeois economics does, when it deals with the relation between the pandemic and the global economic crisis

²¹ *Dialectics of Nature*, op. cit., p. 43, emphasis added.

or when it presents the fake bourgeois ideological “dilemma” of the “priority of health or the economy?” in governmental policies.

The commonsense, formal notion of the metabolic rift as “externality” destroys the unity and the dialectic of form and content of Marx’s conception of metabolism between Nature and society in history the basis of the materialist conception of history. *Natura naturans* and *natura naturata*, to use Spinoza’s language, are not externally related.

As we have insisted on many occasions, the central category of Marxism is not economics but Life itself, the actual *life process* (Lebensprozess).²² A mode of production, as it is emphasized in *German Ideology* is *a mode of existence of life* (Lebensweise).²³

In its metabolism with nature, the actual social life process changes Nature and by changing nature change itself, developing new potentialities and needs. The life process of society is historically formed; a form of existence of life process, its mode of production has necessarily as essential content this ever-changing life process. “Form is essential. Essence is formed. In one way or another also in dependence on Essence”.²⁴

The actual form of social metabolism is the *capitalist organization* of the social life process. It is immanent to it, not an “externality”, independent from this essential content. At the present advanced stage of social development, this capitalist form manifests, in one way or another, its historical decline, exhaustion, and inadequacy to the growing multiple demands of the essential content. It is clashing with the most essential and urgent needs of humanity.

This is what the Covid 19 pandemic revealed. ***The pandemic is not simply a detonator or accelerator of the post-Lehman Brothers implosion of capitalist globalization. It is the catastrophic product and a most acute expression of this globalization in death agony in its capitalist form.***

The perspective of an endless succession of new deadly epidemics, eventually in the post-Covid 19 period, because of the epidemic of epidemics tied with capitalist globalization is frightening but realistic. The Covid 19 disaster, as Mike Davis and other analysts have warned could be the prelude to a global climate crash, in the non-distant future.

Mismanagement of the pandemic and disastrous policies by capitalist governments as well as the impasse that capital’s centers of power are facing, are various manifestations of a historical process: ***Capitalism became incompatible with the most essential and urgent needs of the life process itself.***

The form of social life has to be changed. It has to be formed “in one way

22 K. Marx, *Capital* vol. III, Progress, 1976, p. 250.

23 K. Marx-F. Engels, *The German Ideology*, Collected Works vol. 5, Progress, 1976, p. 31.

24 See V.I. Lenin, *Philosophical Notebooks*, op. cit., p. 144.

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or another in dependence on Essence”, Life’s demands. All conditions of social existence have to be adequately and consciously re-organized according to social needs, and not for the profit of a ruling parasitic oligarchy of capitalists. The ruling parasites have to be overthrown on a world scale to achieve what Marx called *universal human emancipation*, Communism.

“This communism”, Marx wrote in 1844, “as fully developed naturalism equals humanism, and as a fully developed humanism equals naturalism; it is the genuine resolution of the conflict between man and nature, and between man and man - the true resolution of the strife between existence and essence, between objectification and self-confirmation, between freedom and necessity, between the individual and the species. Communism is the riddle of history solved, and it knows itself to be this solution”.²⁵

Suffering humanity is at crossroads: it has to choose, not death, but life.

Athens, November 26-27, 2020

²⁵ Karl Marx, *Economic and Philosophic Manuscripts of 1844*, Moscow: Progress, 1977, p. 97.