

## V.I. Lenin

### MATERIALISM and EMPIRIO-CRITICISM

#### Critical Comments on a Reactionary Philosophy

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( Chapter Five: The Recent Revolution in Natural Science and Philosophical Idealism )

### 3. Is Motion Without Matter Conceivable?

The fact that philosophical idealism is attempting to make use of the new physics, or that idealist conclusions are being drawn from the latter, is due not to the discovery of new kinds of substance and force, of matter and motion, but to the fact that an attempt is being made to conceive motion without matter. And it is the essence of this attempt which our Machians fail to examine. They were unwilling to take account of Engels' statement that "motion without matter is unthinkable." J. Dietzgen in 1869, in his *The Nature of the Workings of the Human Mind*, expressed the same idea as Engels, although, it is true, not without his usual muddled attempts to "reconcile" materialism and idealism. Let us leave aside these attempts, which are to a large extent to be explained by the fact that Dietzgen is arguing against Büchner's non-dialectical materialism, and let us examine Dietzgen's own statements on the question under consideration. He says: "They [the idealists] want to have the general without the particular, mind without matter, force without substance, science without experience or material, the absolute without the relative" (*Das Wesen der menschlichen Kopfarbeit*, 1903, S. 108). Thus the endeavour to divorce motion from matter, force from substance, Dietzgen associates with idealism, compares with the endeavour to divorce thought from the brain. "Liebig," Dietzgen continues, "who is especially fond of straying from his inductive science into the field of speculation, says in the spirit of idealism: 'force cannot be seen'" (p. 109). "The spiritualist or the idealist believes in the spiritual, *i.e.*, ghostlike and inexplicable, nature of force" (p. 110). "The antithesis between force and matter is as old as the antithesis between idealism and materialism" (p. 111). "Of course, there is no force without matter, no matter without force; forceless matter and matterless force are absurdities. If there are idealist natural scientists who believe in the immaterial existence of forces, on this point they are not natural scientists. . . but seers of ghosts" (p. 114).

We thus see that scientists who were prepared to grant that motion is conceivable without matter were to be encountered forty years ago too, and that "on this

point” Dietzgen declared them to be seers of ghosts. What, then, is the connection between philosophical idealism and the divorce of matter from motion, the separation of substance from force? Is it not “more economical,” indeed, to conceive motion without matter?

Let us imagine a consistent idealist who holds that the entire world is his sensation, his idea, etc. (if we take “nobody’s” sensation or idea, this changes only the variety of philosophical idealism but not its essence). The idealist would not even think of denying that the world is motion, *i.e.*, the motion of his thoughts, ideas, sensations. The question as to *what* moves, the idealist will reject and regard as absurd: what is taking place is a change of his sensations, his ideas come and go, and nothing more. Outside him there is nothing. “It moves” —and that is all. It is impossible to conceive a more “economical” way of thinking. And no proofs, syllogisms, or definitions are capable of refuting the solipsist if he consistently adheres to his view.

The fundamental distinction between the materialist and the adherent of idealist philosophy consists in the fact that the materialist regards sensation, perception, idea, and the mind of man generally, as an image of objective reality. The world is the movement of this objective reality reflected by our consciousness. To the movement of ideas, perceptions, etc., there corresponds the movement of matter outside me. The concept matter expresses nothing more than the objective reality which is given us in sensation. Therefore, to divorce motion from matter is equivalent to divorcing thought from objective reality, or to divorcing my sensations from the external world—in a word, it is to go over to idealism. The trick which is usually performed in denying matter, and in assuming motion without matter, consists in ignoring the relation of matter to thought. The question is presented as though this relation did not exist, but in reality it is introduced surreptitiously; at the beginning of the argument it remains unexpressed, but subsequently crops up more or less imperceptibly.

Matter has disappeared, they tell us, wishing from this to draw epistemological conclusions. But has thought remained?—we ask. If not, if with the disappearance of matter thought has also disappeared, if with the disappearance of the brain and nervous system ideas and sensations, too, have disappeared—then it follows that everything has disappeared. And your argument has disappeared as a sample of “thought” (or lack of thought)! But if it has remained—if it is assumed that with the disappearance of matter, thought (idea, sensation, etc.) does not disappear, then you have surreptitiously gone over to the standpoint of philosophical idealism. And this always happens with people who wish, for “economy’s sake,” to conceive of motion without matter, for *tacitly*, by the very fact that they continue to argue, they are acknowledging the existence of thought *after* the disappearance of matter. This means that a very simple, or a very complex philosophical idealism is taken as a basis; a very simple one, if it is a case of frank solipsism (*I* exist, and the world is only *my* sensation); a very complex one, if instead of the thought, ideas and sensations of

a living person, a dead abstraction is posited, that is, nobody's thought, nobody's idea, nobody's sensation, but thought in general (the Absolute Idea, the Universal Will, etc.), sensation as an indeterminate "element," the "psychical," which is substituted for the whole of physical nature, etc., etc. Thousands of shades of varieties of philosophical idealism are possible and it is always possible to create a thousand and first shade; and to the author of this thousand and first little system (empirio-monism, for example) what distinguishes it from the rest may appear to be momentous. From the standpoint of materialism, however, the distinction is absolutely unessential. What is essential is the point of departure. What is essential is that the attempt to *think* of motion without matter smuggles in *thought* divorced from matter—and that is philosophical idealism.

Therefore, for example, the English Machian Karl Pearson, the clearest and most consistent of the Machians, who is averse to verbal trickery, directly begins the seventh chapter of his book, devoted to "matter," with the characteristic heading "All things move—but only in conception." "It is therefore, for the sphere of perception, idle to ask what moves and why it moves" (*The Grammar of Science*, p. 243).

Therefore, too, in the case of Bogdanov, his philosophical misadventures in fact began before his acquaintance with Mach. They began from the moment he put his trust in the assertion of the eminent chemist, but poor philosopher, Ostwald, that motion can be thought of without matter. It is all the more fitting to pause on this long-past episode in Bogdanov's philosophical development since it is impossible when speaking of the connection between philosophical idealism and certain trends in the new physics to ignore Ostwald's "energetics."

"We have already said," wrote Bogdanov in 1899, "that the nineteenth century did not succeed in ultimately ridding itself of the problem of 'the immutable essence of things.' This essence, under the name of 'matter,' even holds an important place in the world outlook of the foremost thinkers of the century" (*Fundamental Elements of the Historical Outlook on Nature*, p. 38).

We said that this is a sheer muddle. The recognition of the objective reality of the outer world, the recognition of the existence outside our mind of eternally moving and eternally changing matter, is here confused with the recognition of the immutable essence of things. It is hardly possible that Bogdanov in 1899 did not rank Marx and Engels among the "foremost thinkers." But he obviously did not understand dialectical materialism.

". . . In the processes of nature two aspects are usually still distinguished: matter and-its motion. It cannot be said that the concept matter is distinguished by great clarity. It is not easy to give a satisfactory answer to the question—what is matter? It is defined as the 'cause of sensations' or as the 'permanent possibility of sensation'; but it is evident that matter is here confused with motion. . . ."

It is evident that Bogdanov is arguing incorrectly. Not only does he confuse the materialist recognition of an objective source of sensations (unclearly formulated in the words “cause of sensations”) with Mill’s agnostic definition of matter as the permanent *possibility* of sensation, but the chief error here is that the author, having boldly approached the question of the existence or non-existence of an objective source of sensations, abandons this question half-way and jumps to another question, the question of the existence or non-existence of matter without motion. The idealist may regard the world as the *movement* of our sensations (even though “socially organised” and “harmonised” to the highest degree); the materialist regards the world as the movement of an objective source, of an objective model of our sensations. The metaphysical, *i.e.*, anti-dialectical, materialist may accept the existence of matter without motion (even though temporarily, before “the first impulse,” etc.). The dialectical materialist not only regards motion as an inseparable property of matter, but rejects the simplified view of motion and so forth.

“ . . . The most exact definition would, perhaps, be the following: ‘matter is what moves’; but this is as devoid of content as though one were to say that matter is the subject of a sentence, the predicate of which is ‘moves.’ The fact, most likely, is that in the epoch of statics men were wont to see something necessarily solid in the role of the subject, an ‘object,’ and such an inconvenient thing for statical thought as ‘motion’ they were prepared to tolerate only as a predicate, as one of the attributes of ‘matter.’”

This is something like the charge Akimov brought against the *Iskra*-ists, namely, that their programme did not contain the word proletariat in the nominative case!<sup>[2]</sup> Whether we say the world is moving matter, or that the world is material motion, makes no difference whatever.

“ . . . But energy must have a vehicle—say those who believe in matter. Why?—asks Ostwald, and with reason. Must nature necessarily consist of subject and predicate?” (p. 39)

Ostwald’s answer, which so pleased Bogdanov in 1899, is plain sophistry. Must our judgments necessarily consist of electrons and ether?—one might retort to Ostwald. As a matter of fact, the mental elimination from “nature” of matter as the “subject” only implies the tacit admission into *philosophy of thought* as the “subject” (*i.e.*, as the primary, the starting point, independent of matter). Not the subject, but the objective source of sensation is eliminated, and *sensation* becomes the “subject,” *i.e.*, philosophy becomes Berkeleyan, no matter in what trappings the word “sensation” is afterwards decked. Ostwald endeavoured to avoid this inevitable philosophical alternative (materialism or idealism) by an indefinite use of the word “energy,” but this very endeavour only once again goes to prove the futility of such artifices. If energy is motion, you have only shifted the difficulty from the subject to the predicate, you have only changed the question, does matter move? into the question, is energy material? Does the

transformation of energy take place outside my mind, independently of man and mankind, or are these only ideas, symbols, conventional signs, and so forth? And this question proved fatal to the “energeticist” philosophy, that attempt to disguise old epistemological errors by a “new” terminology.

Here are examples of how the energeticist Ostwald got into a muddle. In the preface to his *Lectures on Natural Philosophy*<sup>[1]</sup> he declares that he regards “as a great gain the simple and natural removal of the old difficulties in the way of uniting the concepts matter and spirit by subordinating both to the concept energy.” This is not a gain, but a loss, because the question whether epistemological investigation (Ostwald does not clearly realise that he is raising an epistemological and not a chemical issue!) is to be conducted along materialist or idealist lines is not being solved but is being confused by an arbitrary use of the term “energy.” Of course, if we “subordinate” both matter and mind to this concept, the *verbal* annihilation of the antithesis is beyond question, but the absurdity of the belief in sprites and hobgoblins, for instance, is not removed by calling it “energetics.” On page 394 of Ostwald’s *Lectures* we read: “That all external events may be presented as an interaction of energies can be most simply explained if our mental processes are themselves energetic and impose (*aufprägen*) this property of theirs on all external phenomena.” This is pure idealism: it is not our thought that reflects the transformation of energy in the external world, but the external world that reflects a certain “property” of our mind! The American philosopher Hibben, pointing to this and similar passages in Ostwald’s *Lectures*, aptly says that Ostwald “appears in a Kantian disguise”: the explicability of the phenomena of the external world is deduced from the properties of our mind! “It is obvious therefore,” says Hibben, “that if the primary concept of energy is so defined as to embrace psychical phenomena, we have no longer the simple concept of energy as understood and recognised in scientific circles or among the *Energetiker* themselves....” [J. G. Hibben, “The Theory of Energetics and Its Philosophical Bearings,” *The Monist*, Vol. XIII, No. 3, April 1903, pp. 329-30.] The transformation of energy is regarded by science as an objective process independent of the minds of men and of the experience of mankind, that is to say, it is regarded materialistically. And by energy, Ostwald himself in many instances, probably in the vast majority of instances, means *material* motion.

And this accounts for the remarkable phenomenon that Bogdanov, a disciple of Ostwald, having become a disciple of Mach, began to reproach Ostwald not because he does not adhere consistently to a materialistic view of energy, but because he admits the materialistic view of energy (and at times even takes it as his basis). The materialists criticise Ostwald because he lapses into idealism, because he attempts to reconcile materialism and idealism. Bogdanov criticises Ostwald from the *idealist* standpoint. In 1906 he wrote: “. . . Ostwald’s energetics, hostile to atomism but for the rest closely akin to the old materialism, enlisted my heartiest sympathy. I soon noticed, however, an important contradiction in his *Naturphilosophie* : although he frequently emphasises the

*purely methodological* significance of the concept ‘energy,’ in a great number of instances he himself fails to adhere to it. He every now and again converts ‘energy’ from a pure symbol of correlations between the facts of experience into the *substance* of experience, into the ‘world stuff’” (*Empirio-Monism*, Bk. III, pp. xvi-xvii).

Energy is a pure symbol! After this Bogdanov may dispute as much as he pleases with the “empirio-symbolist” Yushkevich, with the “pure Machians,” the empirio-criticists, etc.—from the standpoint of the materialist it is a dispute between a man who believes in a yellow devil and a man who believes in a green devil. For the important thing is not the differences between Bogdanov and the other Machians, but what they have in common, to wit: the *idealist* interpretation of “experience” and “energy,” the denial of objective reality, adaptation to which constitutes human experience and the copying of which constitutes the only scientific “methodology” and scientific “energetics.”

“It [Ostwald’s energetics] is indifferent to the material of the world, it is fully compatible with both the old materialism and pan-psychism” (*i.e.*, philosophical idealism?) (p. xvii). And Bogdanov departed from muddled energetics *not* by the materialist road *but by the idealist* road. . . . “When energy is represented as substance it is nothing but the old materialism minus the absolute atoms—materialism with a correction in the sense of the *continuity* of the existing” (*ibid.*). Yes, Bogdanov left the “old” materialism, *i.e.*, the metaphysical materialism of the scientists, not for *dialectical* materialism, which he understood as little in 1906 as he did in 1899, but for idealism and fideism; for no educated representative of modern fideism, no immanentist, no “neo-criticist,” and so forth, will object to the “methodological” conception of energy, to its interpretation as a “pure symbol of correlation of the facts of experience.” Take Paul Carus, with whose mental make-up we have already become sufficiently acquainted, and you will find that this Machian criticises Ostwald *in the very same way as Bogdanov*: “. . . Materialism and energetics are exactly in the same predicament” (*The Monist*, Vol. XVII, 1907, No. 4, p. 536). “We are very little helped by materialism when we are told that everything is matter, that bodies are matter, and that thoughts are merely a function of matter, and Professor Ostwald’s energetics is not a whit better when it tells us that matter is energy, and that the soul too is only a factor of energy” (p. 533).

Ostwald’s energetics is a good example of how quickly a “new” terminology becomes fashionable, and how quickly it turns out that a somewhat altered mode of expression can in no way eliminate fundamental philosophical questions and fundamental philosophical trends. Both materialism and idealism can be expressed in terms of “energetics” (more or less consistently, of course) just as they can be expressed in terms of “experience,” and the like. Energeticist physics is a source of new idealist attempts to conceive motion without matter—because of the disintegration of particles of matter which hitherto had been accounted non-disintegrable and because of the discovery of heretofore unknown forms of

material motion.

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## Notes

[1] Wilhelm Ostwald, *Vorlesungen über Naturphilosophie*, 2 Aufl., Leipzig, 1902, S. viii. —*Lenin*

[2] Lenin is referring to a speech made at the Second Congress of the R.S.D.L.P. by the “Economist” Akimov, who opposed the Party programme put forward by Iskra, one of his arguments being that in the programme the word “proletariat” occurred as the object, not the subject, of the sentence.

[2. “Matter Has Disappeared”](#) | [4. The Two Trends in Modern Physics and English Spiritualism](#)

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